Appendix C.4
Johnson & Ettinger Model - Data Entry Screen
Inhalation of Volatiles from Groundwater
Current Adult Residential Scenario - CT
Southwest Prperties, Wells G&H Superfund Site, Operable Unit 2
Aberjona Auto Parts

ENTER	Enter X in appro	Vadose zone	ENTER Target	ENTER Target hazard	ENTER Averaging	ENTER Averaging	ENTER	ENTER	ENTER	ENTER
Chemical CAS No.		soll water-filled porosity,	risk for carcinogens,	quotient for noncarcinogens,	time for carcinogens,	time for noncarcinogens,	Exposure duration,	Exposure frequency,	Exposure time	Coversion factor
(numbers only,		θ,,,∨	TR	THQ	AT _C	AT _{NC}	ED	EF	ET	CF
no dashes)	Chemical	(cm³/cm³)	(unitless)	(unitless)	(yrs)	(yrs)	(yrs)	(days/yr)	(hrs/day)	(hrs/yr)
75354	1,1-Dichloroethylene	0.3	1.0E-06	1	70	7	7	350	16	8760
106467	1,4-Dichlorobenzene	0.3	1.0E-08	1	70	7	7	350	16	8760
71432	Benzene	0.3	1.0E-06	1	70	7	7	350	16	8760
67663	Chloroform	0.3	1.0E-06	1	70	7	7	350	16	8760
156592	cis-1,2-Dichloroethylene	0.3	1.0E-06	1	70	7	7	350	16	8760
127184	Tetrachloroethylene	0.3	1.0E-06	1	70	7	7	350	16	8760
79016	Trichloroethylene	0.3	1.0E-06	1	70	7	7	350	16	8760
75014	Vinyl chloride	0.3	1.0E-06	1	70	7	7	350	16	8760
91203	Naphthalene	0.3	1.0E-06	1	70	7	7	350	16	8760
85018	Phenanthrene	0.3	1.0E-06	11	70	7	7	350	16	8760

i soil dry bulk density (ρ_b).

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Appendix C.4
Johnson & Ettinger Model - Chemical Properties Screen
Inhalation of Volatiles from Groundwater
Current Adult Residential Scenario - CT
Southwest Prperties, Wells G&H Superfund Site, Operable Unit 2
Aberjona Auto Parts

Chemical CAS No.	Chemical	Diffusivity in air, D _a (cm ² /s)	Diffusivity in water, D _w (cm ² /s)	Henry's law constant at reference temperature, H (atm-m ³ /mol)	Henry's law constant reference temperature, T _R (°C)	Enthalpy of vaporization at the normal boiling point, $\Delta H_{v,b}$ (cal/mol)	Normal boiling point, T _B (°K)	Critical temperature, T _C (°K)	Organic carbon partition coefficient, K _{oc} (cm ³ /g)	Pure component water solubility, S (mg/L)	Unit risk factor, URF (µg/m³) ⁻¹	Reference conc., RfC (mg/m³)
75354	1.1 Diablesseth Jaco	0.005.00	4045.05	0.00	,							
	1,1-Dichloroethylene	9.00E-02	1.04E-05	2.61E-02	25	6,247	304.75	576.05	5.89E+01	2.25E+03	N/A	2.0E-01
106467	1,4-Dichlorobenzene	6.90E-02	7.90E-06	2.43E-03	25	9,271	447.21	684,75	6.17E+02	7.38E+01	N/A	8.0E-01
71432	Benzene	8.80E-02	9.80E-06	5.56E-03	25	7,342	353.24	562.16	5.89E+01	1.75E+03	7.8E-06	3.0E-02
67663	Chloroform	1.04E-01	1.00E-05	3.66E-03	25	6,988	334.32	536.40	3.98E+01	7.92E+03	2.3E-05	5.0E-02
156592	cls-1,2-Dichloroethylene	7.36E-02	1.13E-05	4.07E-03	25	7,192	333.65	544.00	3.55E+01	3.50E+03	N/A	2.0E-01
127184	Tetrachloroethylene	7.20E-02	8.20E-06	1.84E-02	25	8,288	394.40	620.20	1.55E+02	2.00E+02	5.9E-06	N/A
79016	Trichloroethylene	7.90E-02	9.10E-06	1.03E-02	25	7,505	360.36	544.20	1.66E+02	1.10E+03	1.1E-04	4.0E-02
75014	Vinyl chloride	1.06E-01	1.23E-05	2.71E-02	25	5,250	259.25	432.00	1.86E+01	2.76E+03	8.8E-06	1.0E-01
91203	Naphthalene	5.90E-02	7.50E-06	4.83E-04	25	10,373	491.14	748.40	2.00E+03	3.10E+01	N/A	3,0E-03
85018	Phenanthrene	3.30E-02	7.47E-06	1.30E-04	25	1,057	613.00	869.01	1.41E+04	1.28E+00	N/A	3.0E-03

Appendix C.4
Johnson & Ettinger Model - Calculations Screen
Inhalation of Volatiles from Groundwater
Current Adult Residential Scenario - CT
Southwest Prperties, Wells G&H Superfund Site, Operable Unit 2
Aberjona Auto Parts

		Source- building separation,	Vadose zone soil air-filled porosity,	Vadose zone effective total fluid saturation,	Vadose zone soil intrinsic permeability,	Vadose zone soil relative air permeability,	Vadose zone soil effective vapor permeability,	Thickness of capillary zone,	Total porosity in capillary zone,	Air-filled porosity in capillary zone,	Water-filled porosity in capillary zone,	Floor- wall seam perimeter,	Bidg. ventilation rate,
		L ₇ (cm)	θ _a V (cm³/cm³)	S _{te} (cm³/cm³)	k, (cm²)	k _{re} (cm²)	k, (cm²)	L _{ot}	n _{ez} (cm³/cm³)	θ _{ειτε} (cm³/cm³)	θ _{₩.σz} (cm³/cm³)	Xorack (cm)	Q _{bulkāna} (cm³/ş)
75354	1,1-Dichloroethylene	30.48	0.130	0.659	1.62E-08	0.390	6.33E-09	18.75	0.43	0.127	0.303	4.00E+03	2.54E+04
106467	1,4-Dichlorobenzene	30.48	0.130	0.659	1.62E-08	0,390	6.33E-09	18.75	0.43	0.127	0.303	4.00E+03	
71432	Benzene	30.48	0.130	0.659	1.62E-08	0.390	6.33E-09	18,75	0.43	0.127	0,303	4.00E+03	
67683	Chloraform	30.48	0.130	0.659	1.62E-08	0.390	6.33E-09	18.75	0.43	0.127	0.303		2.54E+04
156592	cis-1,2-Dichloroethylene	30.48	0.130	0.659	1.62E-08	0.390	6.33E-09	18.75	0.43	0.127	0.303	4.00E+03	
127184	Tetrachloroethylene	30.48	0.130	0.659	1.62E-08	0.390	6.33E-09	18.75	0.43	0.127	0.303	4.00E+03	
79016	Trichloroethylene	30.48	0.130	0.659	1.62E-08	0.390	6.33E-09	18.75	0.43	0.127	0.303	4.00E+03	
75014	Vinyl chloride	30.48	0.130	0.659	1.62E-08	0.390	6.33E-09	18.75	0.43	0.127	0.303	4.00E+03	
91203	Naphthalene	30.48	0.130	0.659	1.62E-08	0.390	6.33E-09	18.75	0.43	0.127	0.303	4.00E+03	
85018	Phenanthrene	30.48	0.130	0.650	1.62E-08	0.390	6.33E-09	18.75	0.43	0.127	0.303		2.54E+04

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Appendix C.4
Johnson & Ettinger Model - Calculations Screen
Inhalation of Volatiles from Groundwater
Current Adult Residential Scenario - CT
Southwest Prperties, Wells G&H Superfund Site, Operable Unit 2
Aberiona Auto Parts

		Area of encksed space below grade, A _e (cm ²)	Crack- to-total area ratio, η (unitless)	Crack depth below grade, Z _{crack} (cm)	Enthalpy of vaporization at ave. groundwater temperature,	Henry's law constant at ave. groundwater temperature, H _{TS} (atm-m³/mol)	Henry's law constant at ve. groundwat temperature, H' _{TS} (unitless)	Vapor viscosity at ave. soil temperature, its (g/cm-s)	Vadose zone effective diffusion coefficient, D ^{eff} v (cm²/s)	Capillary zone effective diffusion coefficient, D ^{eff} cz (cm ² /s)	Total overail effective diffusion coefficient, Deff (cm²/s)	Diffusion path length, L (cm)	Convection path length, Lo	Source vapor conc., C _{source} (μg/m³)
75354	1,1-Dichlorosthylene	1.80E+06	2,22E-04	60.40	1								1,5,1)	
106467	1,4-Dichlorobenzene	1.80E+06	2.22E-04	52.12	6,392	1.47E-02	6.34E-01	1.75E-04	5.47E-04	5.12E-04	5.25E-04	30.48	52.12	7.42E+01
71432	Велгеле	1.80E+06		52.12	11,243	8.89E-04	3.83E-02	1.75E-04	4.38E-04	4.12E-04	4.22E-04	30.48	52.12	1.64E+01
07663	Chloroform		2.22E-04	52.12	8,122	2,69E-03	1.16E-01	1.75E-04	5.42E-04	5.07E-04	5.20E-04	30.48	52.12	8.68E+00
156592	cis-1,2-Dichloroethylene	1.80E+06	2.22E-04	52.12	7,554	1.86E-03	8.02E-02	1.75E-04	6.43⊑-04	6.02E-04	6.17E-04	30.48	52.12	11114
127184		1.80E+06	2.22E-04	52.12	7,734	2.04E-03	8.77E-02	1.75E-04	4.59E-04	4.30E-04	4.41E-04	30.48	52.12	7.02E+02
79016	Tetrachloroethylene	1,80E+06	2.22E-04	52.12	9,553	7.83E-03	3.37E-01	1.75E-04	4.39E-04	4.11E-04	4.21E-04	30.48	52.12	1.41E+02
	Trichloroethylene	1.80E+06	2.22E-04	52.12	8,657	4.79E-03	2.06E-01	1.75E-04	4.83E-04	4.52E-04	4.64E-04	30.48	52.12	4.43E+03
75014	Vinyl chloride	1.80E+06	2.22E-04	52.12	5,000	1.73E-02	7.46E-01	1.75E-04	6.44E-04	6.02E-04	6.18E-04	30.48		
91203	Naphthalene	1.80E+06	2.22E-04	52.12	12.913	1.52E-04	6.55E-03	1.75E-04	4.70E-04	4.50E-04	4.57E-04		52.12	1.47E+02
85018	Phenanthrene	1.80E+06	2.22E-04	52.12	1,479	1.14E-04	4.90E-03	1.75E-04	3.50E-04	3,41E-04	3.44E-04	30.48	52.12 52.12	8.86E+00 1.03E+01

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Appendix C.4
Johnson & Ettinger Model - Calculations Screen
Inhalation of Volatiles from Groundwater
Current Adult Residential Scenario - CT
Southwest Prperties, Wells G&H Superfund Site, Operable Unit 2
Aberjona Auto Parts

Autorijona Au		Crack radius, r _{orack} (cm)	Average vapor flow rate into bidg., Q _{rol} (cm ³ /s)	Crack effective diffusion coefficient, D ^{creck} (cm ² /s)	Area of crack, A _{crack} (cm ²)	Exponent of equivalent foundation Peclet number, exp(Pe ⁴) (unitless)	Infinite source indoor attenuation coefficient, α (unitless)	infinite source blog. conc., C _{building} (µg/m³)	Unit risk factor, URF (µg/m³) ^{*†}	Reference conc., RfC (mg/m³)
76354	1,1-Dichloroethylene	0,10	5,22E+00	5,47E-04	4.00E+02	3.87E+155	1.76E-04	1.31E-02	N/A	2.0E-01
106467	1,4-Dichlorobenzene	0.10	5.22E+00	4.38E-04	4.00E+02	1.36E+194	1.70E-04	2.79E-03	N/A	B,0E-01
71432	Benzene	0.10	5.22E+00	5,42E-04	4.00E+02	1.40E+157	1.76E-04	1.53E-03	7.8E-06	3.0E-02
67663	Chloroform	0,10	5.22E+00	6.43E-04	4.00E+02	2.93E+132	1.80E-04	N/A	2.3E-05	5.0E-02
156592	cis-1,2-Dichloroethylene	0.10	5.22E+00	4.59E-04	4.00E+02	3.62E+185	1.71E-04	1.20E-01	N/A	2.0E-01
127184	Tetrachloroethylene	0.10	5.22E+00	4.39E-04	4.00E+02	9,93E+193	1.70E-04	2.39E-02	5.9E-06	N/A
79016	Trichloroethylene	0.10	5.22E+00	4.83E-04	4.00E+02	1.52E+176	1.73E-04	7.66E-01	1.1E-04	4.0E-02
75014	Vinyl chloride	0.10	5.22E+00	6.44E-04	4.00E+02	1.44E+132	1.80E-04	2.64E-02	8.8E-06	1.0E-01
91203	Naphthalene	0.10	5.22E+00	4,70E-04	4.00E+02	1.34E+181	1.72E-04	1.53E-03	N/A	3.0E-03
85018	Phenanthrene	0.10	5.22E+00	3.50E-04	4.00E+02	3.05E+243	1.64E-04	1.68E-03	N/A	3.0E-03

Appendix C.4 Johnson & Ettinger Model - Results Inhalation of Volatiles from Groundwater Current Adult Residential Scenario - CT Southwest Prperties, Wells G&H Superfund Site, Operable Unit 2 Aberjona Auto Parts

RISK-BASED GROUNDWATER CONCENTRATION CALCULATIONS:

Risk-based

indoor

exposure

groundwater

conc.,

Pure

component

water

solubility,

S

Final

indoor

exposure

groundwater

conc.,

Indoor

exposure

groundwater

conc.,

noncarcinogen

Indoor

exposure

groundwater

conc.,

carcinogen

INCREMENTAL RISK CALCULATIONS:

75354	1,1-Dichloroethylene
106467	1,4-Dichlorobenzene
71432	Benzene
67663	Chloroform
156592	cis-1,2-Dichloroethylene
127184	Tetrachloroethylene
79016	Trichloroethylene
75014	Vinyl chloride
91203	Naphthalene
85018	Phenanthrene

(μg/L)	(µg/L)	(μ g/L)	(μg/L)	(μg/L)
NA	NA	NA NA	2.25E+06	NA
NA	NA	NA	7.38E+04	NA
NA	NA	NA	1.75E+06	NA
NA	NA	NA	7.92E+06	NA
NA	NA	NA	3.50E+06	NA
NA	NA	NA	2.00E+05	NA
NA NA	NA	NA	1.10E+06	NA
NA	NA	NA	2.76E+06	NA
NA.	NA	NA NA	3.10E+04	NA
NA	NA	NA	1.28E+03	NA

Incremental	Hazard
risk from	quotient
vapor	from vapor
intrusion to	intrusion to
Indoor air,	indoor air,
carcinogen	noncarcinogen
(unitless)	(unitless)
NA	4.2E-05
NA	2.2E-06
7.6E-10	3.2E-05

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)6
)5
)4
12
)4
)4
14
),

95% UCL Cancer 95% UCL Risk Н TOTAL: 5E-06 1E-02

= Cancer risk > 1E-05 or HQ/HI>1E+00

CALCULATE RISK-BASED SOIL CONCENTRATION (with "X" or "YES" bod

SL-SCREEN Vereion 2.3; 03/01

YES OR CALCULATE INCREMENTAL PURISH FROM ACTUAL SOLL CONDENTRATION (main "X" in "YES" for and initial all conc. below

	Erver initial action		ENTER Death	EHTER	ENTER	ENTER		ENTER												
ENTER Chamical		ENTER Mean Acid	below crace to bottom of environm	Create below arede to top	Awrage	Vactore zone 508 soil type		User-defined yedges zone epi vezyr	ENTER Vactore zone system	ENTER Vadosa tong editolal	ENTER Various cons activator-Med	ENTER Vedose zone aol crosnic	ENTER Averaging time for	ENTER Awasana Ikre for	ENTER Expose	EHTER Excepte	ENTER Excava	ENTER Coversion	ENTER Teroel	ENTER Tecor heart publical for
CAS No. (numbers only.		cenc	Miner Boor,	र्थ प्रशासक्तकां स्था	lemperature.	(Limed to manme)	a CR	DATTMALINY.	bulk denety.	COTOON,	perceity.	centran fraction.	carcinogens,	noncercinophis.	duration.	frequency,	lime .	fector	carcinogens.	vorcercinopen
no destres	Chamical	(MD14)	Le	u	Υ ₂	sof veper		. *,	Α,	n ^r	a.v	II.V	ATC	ATNC	ED	EF	ĘT	CF	गर	THO
10.00		(40,14)	(*8 or 200 cm)	(cnv)	(0)	(ppmraghirly)	Note	(cm²)	(g/cm²)	(unit retat)	(cm³/cm³)	(uniform)	(100)	(MO)	(Arte)	(days-yr)	(hm/qe/)	(h/s/n)	(uralless)	(प्रामीपदा)
10000	Trimedy/berzene, 1,2,4-		15	15	10	LS	1 1 1		15	0.43	0.3	0.002	70)	76	25	280	- 8	6760	1.0E-06	1 1
140000	Olchkroetrylene, 1,2- (total)	<u> </u>	16	15	10	LS T			1.5	0.45	0.3	0.002	70	25	25	250		8760	1.0E-08	1 1
100073.	Trimethylbenzene, 1,3,5-		15	16	10	LS .			1,5	0.43	0.3	0.002	70	25	25	260		8760	1,0E-06	1 1
91300	n-Butythenzene Nashihalene	2.74E+03	16	16	10	LS	1		1.5	0.43	0.3	0.002	70	25	25	250		8760	1,06-36,1	1
90679	leopropylokiene, 4-	4.746.40.1	15	15	10	LS LS	1		1.5	0.43	0.5	0.002	70	25	25	250		8760	1.0E-08	11_
136664	But/Dertzerle, eac-	+	15	15	10	L6	+		1.5	0 43	0.3	0.002	70	25	25	500		8760	1.05-06	1 1
74673	Chiprometrane	2.49€+02	18	16	10	LB	+++		1.5	0.43	03	0.002	70	25 25	25 25	250 250	8	8760	1.0E-05	1 1
79014	Vinyl chloride	2.81E+02	15	15	10	13	1		1.5	0.43	0.3	0.002	70	25	25	260	-	8760 8760	1.0E-06	
74630	Bromornethane		18	18	10	Lis -	1 7 1		1.5	0.43	0.3	0.003	70	25	25	260		8760	1.0E-06	+
79002	Ethyl Chloride	8.80E+01	15	15	10	ls.			1,6	0.43	0.3	0.002	TQ	25	75	250	8	8760	1.0E-06	+
7ESH NICH	1,1-Dichloroethylene	1 20E+02	15	16	10	Us	Γ		1.5	0 43	0.3	0.002	70	25	25	250		8760	1.0E-06	1 1
RFS-1	Vzichlom-1.2.2-milliournethene 1.1.2- Acetone	3 24E+02	15	15	10	15			1.5	0.43	0.3	0.002	70	2.5	25	250	8	1760	1,0E-Qd	1
79:00	Carbon Disulfice	32-01	15	18	10	1.5	++		1.5	0.43	D.3	0.002	70	25	25	260	8	8760	1.5E-06	1
7996	Methyl Acetale	· · · · · · · ·	15	18	10	1.0	+ ; 1		1.5	0.43	0.3	0.002	7g 70	25	25	250	8	8760	1.0E-06	1
79060	Methylene chloride	7.27E+02	15	18	10		1-1-1		1.6	0.43	0.3	0.002	70	25	25	250 250	- ð	8760	1.0E-08	-
190000	trans-1,2-Dichloroethylene	7.73E+01	16	18	10	18	1		1,5	0.43	0.3	0.002	70	25	25	280		8760	1.0E-06	
1954000	Methyl-Tertiary-Butyl Ether	5.75E+01	16	15	10	La .	1		1.5	0.43	0.3	5.002	70	25	26	250	- 6	8760 8760	1.06-08	+ :-
MD43	1,1-Dichloroethane	3.56E+02	15	15	10	LS .	$\overline{}$		1.6	0.43	0.3	0.002	70	25	26	280		8760	1.06-04	+
194002	cls-1,2-Dichloroethylene	1.80E+02	15	15	10	LB	171		1.6	0.43	0.3	0.002	70	25	26	250		8760	1.0E-04	+
Person	Butanone, 2- (MEK)		16	18	10	US.			1.6	0.43	0.3	0.002	70	25	25	250	- 5	8760	1.0€-01	+ -
THESE	1,1,1-7richloroethane	<u> </u>	16	15	10	LS	1		1.6	0.43	6.5	0.005	70	25	25	250		8760	106-06	1 1
196827	Cyclohecurse	2106402	15	15	10	LS.			1.5	0.43	0.3	0 002	70	25	25	500	8	areq	1.0E-08	7-7-
FHERE TROME	Banzeryo Trichiorosifryisma	2015-02	15	15	10	LS.	1.		1.6	0.43	0.3	0 002	70	25	28	250	8	arred	1.06-08	
144473	Methyl cycloheane	4,45E+02	15	15	10	US			1.5	0.43		0 002	70	25	25	250	8	a760	10€-08	11
(SAND	Toluene	5.65E 402	16	15	10	La	++		1.6	0.43	0.3	0.002	70	25	25	250		8760	1.0E-08	11111
127144	Tetrachicrostrylana	1.476+02	16	15	10	<u> </u>	┞╬┪		1.5	0.43	0.3	6 002	70	25 25	25	250	8	8760	1.06.01	
100007	Chlorobenzene	3.11E+02	16	15	10	<u>Câ</u>	-		1.8	0.43	0.3	0.002	70	25	25 25	250 250	8	8783	1.0E-08	
100414	Ethythenzene	1.846+02	15	15	10	L8	1		1.5	0.43	63	0.002	70	26	- 25	250		areo	1.0E-08	1
1330907	Xylenee		15	15	10	LE	1		16	0.43	93	0.002	70	25	25	250	- 5	8760	1.0€-06	+
109425	Styrene		15	16	10	LS	1		1.8	0.43	0.3	0.002	70	75	75	250	8	8760	1.06-06	+
1429	teopropylbenzene		15	15	10	LÉ.	1		1.5	0.43	0.3	0.000	70	25	25	250		9760	1.0E-08	+ ;
78144	1,1,2,2-Tetrachkoosthane		15	15	10	(8			1.5	0.43	03	0.000	70	25	25	250	- 4	8760	1.0€-06	1
541731	Dichlorobenzene, 1.3- 1.4-Dichlorobenzene	1.00E+02 2.50E+02	15	15	10	LS			1.6	0.43	0.3	0.002	70	25	25	280	. 8	8760	1.0E-00	1
100-107	1,3-Dichlorobergane	5.10E+01	16	15	10	LS	1-1-1		1.6	0.43	0.9	9.903	70	78	25	250		8760	1.06-01	1
120021	1,2,4-Trichlorobengene	5.1.2.151		15	19	LS			1.5	0.43	93	0.000	70	25	26	250	•	878C	1.0E-08	
777827	Benzeldehvide	1	15	16	10	LA	1-1		1.5	0.43	03	0.002	70	26	26	260		8780	1.0E-06	
81676	Methylnaphthalana, 2-	6 41E+G3	19	15	10	18	+++		1.5	0.43	0.3	0.002	70	25 28	25	260 250	A	8760	1.06-06	+
EES (Biphanyi, 1,1'-		15	16	10	- ŭ	1	-	1.5	0.43	0.3	0.002	70	25	26	250	*	8760	1.0E-06	-
	Acemphtylene	4 00€+02	18	13	10	LB:	1		1.5	0.43	0.3	9,002	70	25	28	250		9760 9760	1.06-08	+
4773A	Aceniphthene		. 15	16	10	LS	1		1.5	0.43	0.3	0.002	70	25	25	250	8	8780	1.0E-06	+
1350	Dibenzofuren	1.79E+03	75	15	10	LE			1.5	0.43	0.3	0.002	סל	25	26	250		8780	1.06-08	+ -
MOTO	Plucrene	1	18	18	10	i.s.	1		1.5	0.43	0.3	0.002	70	25	25	250	8	8760	1 08-08	+
00 054	Phenanthrene	3.652+04	18	15	10	l8			1.5	0.43	0.5	0.007	70	25	25	250		8760	1.06-08	1
'काळ'	Anthrecane	9.83E+04	15	16	10	L8			1.5	0.43	0.3	0.002	70	25	25	250	8	8780	1.0E-0d	1
G-GI	C5-C8 Alighatics C8-C12 Allohatics	9.83E+04 8.71E+04	15	15	10	L\$			1.5	0.43	0.3	0.002	70	76	26	250	8	8760	1.06-06	1
CH-CM CH-CM	C9-C12 Alignatics	4.31E+06	15	15	10	LØ .			1.6	0.43	0.3	0.002	70	28	25	250		8760	106-04	1
CHC16	C9-C18 Allohatice	5.04E+06	15	18	10	Tg.			1.5	0.43	0.3	0.002	70	25	215	250	8	8780	1.06-06	1
C11428	C11-C22 Aromatica	4.10£+08	15	15	10	L8			1.5	0.43	0.3	0.002	95	26	25	250		8760	1.06-06	1
Vale:	OTTO A POST PORTION			15					1.0	0.43	0.5	0.002	70	26	26	250	•	6760	1 0E-08	

Appendix C.4
Johnson & Etlinger Model - Data Entry Screen
Inhalation of Volatiles from Soil
Future Commercial Scenario - RME
Southwest Prperties, Wells G&H Superfund Site, Operable Unit 2
Whitney Barrel

Chemical CAS No. (numbers only, no dashes) (Chemical	Diffusivity in air, D _a (cm²/s)	Diffusivity in water, D _w (cm²/s)	Henry's law constant at reference temperature, H (atm-m³/mol)	Henry's law constant reference temperature, T _R (°C)	Enthalpy of vaporization at the normal boiling point, ΔH_{Vb} (cal/mol)	Normal boiling point, T _B (°K)	Critical temperature, T _c (°K)	Organic carbon partition coefficient, K_{∞} (cm ³ /g)	Pure component water solubility, S (mg/L)	Unit risk factor, URF (μg/m³) ⁻¹	Reference cond., RfC (mg/m³)	Physical state at soil temperature, (S.L.G)
95636	Trimethylbenzene, 1,2,4-	7.80E-02	9.03E-06	5.70E-03	25	1.25E+03	442.30	649.11	3,72E+03	5.70E+01	N/A	6.0E-03	L.
540590	Dichloroethylene, 1,2- (total)	5.59E-02	6.47E-06	4,30E-04	20	1,32E+03	585.00	877.50	1.28E+02	1.30E+00	#N/A	#N/A	0.0E+00
108678	Trimethylbenzene, 1,3,5-	6.48E-02	7.86E-06	7.81E-03	25	1.25E+03	442.30	649.11	1,67E+03	2.00E+01	N/A	6.0E-03	L
104518	n-Butylbenzene	7.25E-02	8.39E-06	1.25E-02	25	1.23E+03	456.00	684.00	2.51E+03	1.26E+00	#N/A	#N/A	L
91203	Naphthalene	5.90E-02	7.50E-06	4.83E-04	25	1.04E+04	491.14	748,40	2.00E+03	3.10E+01	N/A	3.0E-03	S
99876	Isopropyltoluene, 4-	7.25E-02	8.39E-06	8.60E+00	25	1.24E+03	450.10	652.04	1.58E+03	2.34E+01	N/A	4.0E-01	L
135968	Butylbenzene, sec-	8.00E-02	8.00E-06	1.67E-02	25	1.24E+03	446.65	669.98	3,11E+04	1.76E+01	#N/A	#N/A	0.0E+00
74873	Chloromethane	1.26E-01	6.50E-06	8.67E-03	25	1.35E+03	249.00	373.50	1.43E+01	5.32E+03	N/A	9.0E-02	0.0E+00
75014	Viriyl chloride	1,06E-01	1.23E-05	2.71E-02	25	5,25E+03	259.25	432.00	1.86E+01	2.76E+03	8.8E-06	1.0E-01	<u> </u>
74839	Bromomethane	7.28E-02	1.21E-05	6.22E-03	25	5,49E+03	276,50	414.75	1.43E+01	1.52E+04	N/A	5.0E-03	0.0E+00
75003	Ethyl Chloride	1,26E-01	6.50E-06	8.67E-03	25	1.36E+03	249.00	373.50	1.43E+01	5.32E+03	N/A	1.0E+01	<u> </u>
75354	1,1-Dichloroethylene	9.00E-02	1.04E-05	2.61E-02	25	6.25E+03	304.75	576.05	5,89E+01	2.25E+03	N/A	2.0E-01	L
	Trichloro-1,2,2-triflouroethane, 1,1,2-	2.88E-02	8.07E-06	5.17E-01	25	1.33E+03	320.70	481.05	2.25E+02	1.70E+02	N/A	3.0€+01	0,0E+00
67641	Acetone	1.24E-01	1.14E-05	3.88E-05	25	6.96E+03	329.20	508.10	5,75E-01	1.00E+06	N/A	N/A	<u> </u>
75150	Carbon Disulfide	1.04E-01	1.29E-05	1,27E-02	25	6,39E+03	319.00	552.00	5.14E+01	2.67E+03	N/A	7.0E-01	L
79209	Methyl Acetate	1.04E-01	1.00E-05	1.13E-04	25	1,31E+03	365,00	547.50	3.32E+00	2.43E+05 1.30E+04	#N/A 4.7E-07	#N/A 3.0E+00	0.0E+00
75092 156605	Methylene chloride	1.01E-01	1.17E-05	2.19E-03 9.39E-03	25	6.71E+03	313.00	510.00 516.50	1.17E+01 5.25E+01	6.30E+04	4.7E-07 N/A	2.0E-01	<u> </u>
1634044	trans-1,2-Dichloroethylene	7.07E-02 1.02E-01	1.19E-05 1.05E-05	9.39E-03 5.87E-04	25 25	1,33E+03 1,32E+03	328.36	497.11	3.84E+01	5.10E+04	N/A	3.0E+00	
75343	Methyl-Tertlary-Butyl Ether 1,1-Dichloroethane	7.42E-02	1.05E-05	5.61E-03	25	6.90E+03	330.55	523.00	3.16E+01	5,06E+03	N/A	5.0E-01	
156592	cis-1,2-Dichloroethylene	7.36E-02	1,13E-05	4,07E-03	25	7,19E+03	333.65	544.00	3.55E+01	3.50E+03	N/A	2.0E-01	-
78933	Butanone, 2- (MEK)	8.08E-02	9.80E-06	5.60E-05	25	1.31E+03	352.50	528.75	3.83E+00	2.23E+05	N/A	N/A	0.0E+00
71556	1,1,1-Trichloroethane	7.80E-02	8.80E-06	1.72E-02	25	7.14E+03	347.24	545.00	1.10E+02	1.33E+03	N/A	2.2E+00	L
110827	Cyclohexane	8.00E-02	9.00E-06	2.00E+00	25	1.31E+03	353.85	530.78	1,60€+02	5.50E+01	#N/A	#N/A	0.0E+00
71432	Benzene	8.80E-02	9.80E-06	5.56E-03	25	7.34E+03	353.24	562.16	5.89E+01	1.75E+03	7.8E-06	3.0E-02	
79016	Trichloroethylene	7.90E-02	9.10E-06	1.03E-02	25	7.51E+03	360.36	544.20	1,66E+02	1.10E+03	1.1E-04	4.0E-02	L
108872	Methyl cyclohexane	9.86E-02	8.52E-06	4.23E-01	25	1.30E+03	373.90	560.85	2.68E+02	1,40E+01	N/A	3.0E+00	Ļ
108883	Toluene	8.70E-02	8,60E-06	6.63E-03	25	7.93E+03	383.78	591.79	1.82E+02	5.26E+02	N/A	4.0E-01	L.
127184	Tetrachloroethylene	7.20E-02	8.20E-06	1.84E-02	25	8.29E+03	394.40	620.20	1.55E+02	2.00E+02	5.9E-06	N/A	L
108907	Chlorobenzene	7,30E-02	8.70E-06	3.71E-03	25	8.41E+03	404.B7	632.40	2.19E+02	4,72E+02	N/A	6.0E-02	L
100414	Ethylbenzene	7.50E-02	7,80E-06	7.88E-03	25	8,50E+03	409,34	617.20	3.63E+02	1.69E+02	N/A	1.0E+00	Ļ
1330207	Xylenes	7.69E-02	8.44E-06	6.73E-06	25	1.26E+03	417.40	616.21	2.41E+02	2.20E+02	N/A	1.0E-01	L
100425	Styrene	7.10E-02	B.00E-06	2,76E-03	25	8,74E+03	418,31	636.00	7.76E+02	3.10E+02	#N/A	#N/A	
98828	Isopropylbenzene	6.50E-02	7.83E-06	1.47E-02	25	1,26E+03	425.40	631.01	9,31E+03	5.60E+01	N/A	4.0E-01	
79345	1,1,2,2-Tetrachloroethane	7.10E-02	7.90E-06	3.44E-04	25	9.00E+03	419.60	661.15	9.33E+01 1.70E+02	2,97E+03 6,88E+01	#N/A	#N/A	
541731 106467	Dichlorobenzene, 1,3- 1,4-Dichlorobenzene	4,14E-02 6.90E-02	9.85E-06 7.90E-06	4.70E-03 2.43E-03	25 25	1.24E+03 9.27E+03	446.00 447.21	683.96 684.75	6.17E+02	7.38E+01	N/A N/A	N/A 8.0E-01	S
95501	1,4-Dichlorobenzene	6.88E-02	9.41E-06	1.62E-06	25 25	9.27E+03	465.00	697.50	5.34E+01	2.77E+04	N/A	N/A	\$
120821	1,2,4-Trichlorobenzene	3.00E-02	8.23E-06	1.42E-03	25	1.05E+04	486.15	725.00	1.78E+03	3.00E+02	N/A	2.0E-01	l i
100527	Benzaldehyda	7.30E-02	9.07E-06	2.62E-05	25	1,24E+03	452.00	678.00	3.27E+01	6.57E+03	#N/A	#N/A	0.0E+00
91576	Methylnaphthalene, 2-	4.84E-02	7.75E-06	1.01E-03	25	1.17E+03	514.05	761.01	8.51E+03	2.46E+01	N/A	3.0E-03	S
92524	Biphenyl, 1,1'-	4.04E-02	8.15E-06	3.03E-04	25	1.15E+03	529.10	793,65	6.25E+03	6.94E+00	N/A	N/A	0.0E+00
208968	Acenaphthylene	4.43E-02	7.44E-06	2.80E-04	25	1.12E+03	553.00	792.01	4.79E+03	3.93E+00	N/A	3.0E-03	S
83329	Acenaphthene	4.21E-02	7.69E-06	1.55E-04	25	1.22E+04	550.54	803.15	7.08E+03	4.24E+00	N/A	3.0E-03	S
132649	Dibenzofuran	2.67E-02	5.93E-06	4.00E-03	25	1.11E+03	559.00	B24.01	8.13E+03	1.00E+01	N/A	N/A	S
86737	Fluorene	3.63E-02	7.88E-06	9.41E-08	25	1,27E+04	570.44	870.00	7.71E+03	1.90E+00	N/A	3.0E-03	S
85018	Phenanihrene	3,30E-02	7.47E-06	1,30E-04	25	1.06E+03	613.00	B69.01	1.41E+04	1.28E+00	N/A	3.0E-03	S
120127	Anthracene	3.24E-02	7.74E-06	6,51E-05	25	1.31E+04	615.18	873.00	2.95E+04	4.34E-02	N/A	3.0E-03	S
C5-C8	C5-C8 Aliphatics	6.00E-02	1.00E-05	1.30E+00	25	NA NA	NA	NA	2.27E+03	1.10E+04	N/A	2.0E-01	S
C9-C12	C9-C12 Aliphatics	6.00E-02	1.00E-05	1,56E+00	25	NA	NA	NA	1.50E+05	7.00E+01	N/A	2.0E-01	S
	CO CAO Amerikan	6.00E-02	1.00E-05	7.92E-03	25	NA.	NA	NA	1.78E+03	5.10E+04	N/A	5.0E-02	S
C9-C10 C9-C18	C9-C10 Arometics C9-C18 Aliphatics	6.00E-02	1.00E-05	1,66E+00	25	NA NA	NA.	NA.	6.80E+05	1.00E+01	N/A	2.0E-01	s

Appendix C, 4
Johnson & Ettinger Model - Data Entry Screen
Inhatation of Voletiles from Soil
Future Commercial Scenario - RME
Southwest Prparies, Wells G&H Superfund Site, Operable Unit 2
Whitney Barrel

Chemical CAS No.		Source- building separation,	ecil air-filled parasity,	Vadose zone effective lotal fluid issturation,	Vadose zone soil intrinsic permeability,	Vedose zone soli relative sir permeability,	Vadose zone soil effective vapor permeability,	Floor- wall seem perimeter,	Initial soil concentration used,	Bidg. veniliation rate,	Area of anclosed space below grade.	Crack- to-lotal area ratio,	Crack depth below grade.	Enthalpy of raporization a ave. soli temperature.	constant at ave. soil	Henry's law constant at ave. soil temperature.	Vapor viacosity at ava. soil temperature,	Vadose zone effective diffusion coefficient,
(numbers only, no dashes)	Chemical	LT (cm)	6 _n ^V (cm³/cm³)	S _m (cm³/cm³)	k, (cm²)	k _{ra} (cm²)	k _e (cm²)	Xorack (cm)	CR (µg/kg)	O _{bearing} (e/ ^c mo)	A _{tt} (cm²)	η (unitless)	Z (cm)	ΔΗ _{ν,τα} (cal/mol)	H ₁₂ (atm-m³/mol)	HTS (Unitless)	μτα (g/cm-s)	D ^{ef} √ (cm²/s)
							1	100.11	4-131	(=	(/	(Brition 33)	Çariiy	(odkilibi)	, , , , , ,	(01100-22)	/grin-2)	
95636	Trimelhylbenzene, 1,2,4-	1	0.130	0.659	1.62E-08	0.390	5.33E-09	1.72E+04	4.36E+05	2.52E+06	9.50E+06	1.30E-04	15	1.55E+03	4.98E-03	2.13E-01	1.75E-04	4.77E-04
540590	Dichloroethylene, 1,2- (total)	1	0.130	0.859	1.62E-08	0.390	6.33E-09	1 72E+04	5.96E+0Z	2.52E+06	9.50E+08	1.30E-04	. 15	1.73E+03	3.87E-04	1.67E-02	1.75E-04	3.77E-04
10567B	Trimelhylbenzene, 1,3,5-	1	0.130	0.659	1.62E-08	0.390	6.33E-09	1.72E+04	7.13E+04	2.52E+08	9.50E+06	1.30E-04	15	1.55E+03	6.60E+03	2.93E-01	1.75E-04	3.96E-04
104518	n-Bulylbenzene		0.130	0.85B	1.62E-08	0.390	6.33E-09	1.72E+04	6.63E+03	2.52E+08	9.50E+08	1,30E-04	15	1.53E+03	1.09E-02	4.69E-01	1.75E-04	4.41E-04
91203	Naphthalene	1	0.130	0.859	1.62E-08	0.390	6.33E-09	1.72E+04	2.74E+03	2.62E+06	9.60E+08	1.30E-04	15	1.28E+04	1.62E-04	6.55E-03	1.75E-04	4.70E-04
135988	Isopropyltoluene, 4- Butylbenzene, sec-	1	0.130 0.130	0.659 0.659	1,62E-08	0.390	6.33E-09	1.72E+04	7.31E+05	2.52E+06	9.50E+06	1.30E-04	15	1.57E+03		3 22E+02	1.75E-04	4,39E-04
74873	Chloromethane	 	0.130	0.659	1.62E-08 1.62E-08	0.390	6.33E-09	1.72E+04	1.105+06	2,52E+08	9.50E+06	1.30E-04	15	1.53E+03	1.46E-02	6.27E-01	1,75E-04	4.86E-04
75014	Vinyt chloride	 	0.130	0.659	1.62E-06	0.390	6.33E-09 6.33E-09	1.72E+04 1.72E+04	2.49E+02 2.61E+02	2.52E+08	9.50E+06 9.50E+06	1,30E-04	15	1 20E+03	7.70E-03	3.35E-01	1.75E-04	7.66E-04 6.44E-04
74839	Bromomethane	1	0.130	0.659	1.82E-08	0.390	6.33E-09	1.72E+04	3.69E+06	2.52E+06 2.52E+06	9.50E+06	1.30E-04 1.30E-04	15	5.00E+03 5.39E+03	1,73E-02 3,84E-03	7.48E-01 1.65E-01	1.75E-04 1.75E-04	4.48E-04
75003	Elhyl Chloride	1	0.130	0.659	1.62E-08	0.390	6.33E-09	1.72E+04	8.60E+01	2.52E+08	9.50E+08	1.30E-04	15	1.20E+03	7.78E-03	3.36E-01	1.75E-04	7.66E-04
75354	1_1-Dichloroethylene	1	0.130	0.659	1.62E-08	0.390	6.33E-09	1,72E+04	1.20E+02	2.52E+06	9.60E+08	1.30E-04	15	8.39E+03	1.47E-02	6.34E-01	1.75E-04	5.47E-04
76131	Trichloro-1,2,2-triflouroethane, 1,1,2-	1	0.130	0.859	1.62E-08	0.390	6,33E-09	1.72E+04	3.99E+05	2.52E+06	9.60E+08	1.30E-04	15	1.44E+03	4.55E-01	1.96E+01	1,75E-04	1,75E-04
67641	Acetone	1	0.130	0.659	1,62E-08	0.390	8.33E-09	1.72E+04	3.24E+02	2.52E+06	9.50E+08	1.30E-04	15	7.56E+03	1.97E-05	8.50E-04	1.75E-04	2.07E-03
75150	Carbon Disulfide	1	0.130	0.659	1.62E-D6	0.390	6.33E-09	1.72E+04	8.78E+05	2.52E+08	9.50E+06	1.30E-04	15	5.68E+03	6.99E-03	3.01E-01	1,75E-04	6.34E-04
79200	Methyl Acetate	1	0.130	0.659	_1.62E-08	0.390	6.33E+09	1.72E+04	5.03E+07	2.52E+06	9.50E+08	1.30E-04	15	1 50E+03	9.88E-05	4.25E-03	1.75E-04	5.61E-04
75092	Methylene chloride	1	0.130	0.659	1.62E-08	0.390	6.33E-09	1.72E+04	7.27E+02	2.52E+08	9.50E+06	1.30E-04	15	7.03E+03		5.03E-02	1,75E-04	6.35E-04
156605	trans-1,2-Dichloroethylene	1	0.130	0.659	1.62E-08	0.390	6.33E-09	1.72E+04	7.73E+01	2.52E+03	9.50E+08	1.30E-04	15	1.42E+03	8.27E-03	3.56E-01	1.75E-04	4.32E-04
1634044	Melhyl-Yertiary-Butyl Ether	1	0.130	0.659	1,62E-08	0.390	6.33E-09	1.72E+04	5.75E+01	2.52E+08	9.50E+06	1.30E-04	15	1.45E+03	5.166-04	2,22E-02	1.75E-04	6.87E-04
75343 158582	1,1-Dichloroethane	1	0.130	0,659	1.62E-08	0.390	6,33E-09	1.72E+04	3.56E+02	2.52E+08	0.50E+08	1.30E-04	15	7.45E+03		1.24E-01	1.75E-04	4.58E-04
78933	cis-1,2-Dichloroethylene Butanone, 2- (MEK)	1	0.130	0.659	1.62E-08	0.390	6.33E-09	1.72E+04	1 80E+0Z	2.52E+06	9.50E+08	1.30E-04	15	7.73E+03	2.04E-03	8.77E-02	1,75E-04	4.59E-04
71558	1,1,1-Trichloroethane	1 1	0.130	0.659	1.62E-08	0.390	6.33E-09 6.33E-09	1.72E+04 1.72E+04	4.63€+07	2.52E+06	8 50E+08	1,30E-04	15	1.49E+03	4.90E-05	2.11E-03	1.75E-04	9.45E-04
110627	Cyclohexane	1 -	0.130	0.659	1.52E-08	0,390	6.33E-09	1.72E+04	8.01E+05 3.88E+05	2.52E+06 2.52E+08	9.50E+08	1.30E-04	15	7.85E+03	8.50E-03	3.66E-01 7.54E+01	1.75E-04	4.75E-04
71432	Benzene	1	0.130	0.659	1.625-08	0,390	6.33E-09	1.72E+04	2.10E+02	2.52E+08	9.50E+06	1,30E-04 1,30E-04	15	8 12E+03	1.75E+00 2.69E-03	1 18E-01	1.75E-04 1.75E-04	4.85E-04 5.42E-04
79016	Trichiproethylene	- i-	0.130	0.659	1.625-08	0,390	6.33E-09	1.72E+04	2.91E+02	2.52E+08	9.50E+06	1.30E-04	15	8.58E+03		2 06E-01	1.75E-04	4.83E-04
108872	Methyl cyclohexane	1	0.130	0.659	1.62E-08	0.390	6.33E-09	1.72E+04	4.45E+02	2.52E+08	9.50E+06	1.30E-04	15	1.516+03	3 70E-01	1.59E+01	1.75E-04	5.98E-04
108883	Toluene	i	0.130	0.659	1.82E-08	0.390	6.33E-09	1.72E+04	5.85E+0Z	2.52E+05	9.50E+06	1.30E-04	15	9.15E+03	2.92E-03	1.26E-01	1.75E-04	5.34E-04
127184	Tetrachioroethylene	1	0.130	0.659	1.62E-08	0.390	6.33E-09	1.72E+04	1,47E+02	2.52E+06	9.50E+08	1.30E-04	15	9.55E+03	7.83E-03	3.37E-01	1.75E-04	4.39E-04
109907	Chlorobenzene	1	0.130	0.659	1.62E+08	0.390	6.33E-09	1.72E+04	3.11E+0Z	2.52E+06	8.50E+08	1.30E-04	15	9.50E+03	1.54E-03	6.65E+02	1.75E-04	4.55E-04
100414	Elhylbenzene	1	0.130	0.659	1.625-06	0.390	6.33E-09	1.72E+04	1.84E+02	2.52E+06	8 50E+06	1,30E-04	15	1.02E+04	3.18E-03	1.37E-01	1.75E-04	4.60E-04
1330207	Xyfenes	1	0.130	0.659	1.62E-08	0.390	6.33E-09	1.72E+04	1.50E+05	2.52E+06	9.50E+08	1.30E-04	15	1.54E+03	5.86E-08	2.52E-04	1.75E-04	3.75E-03
100425	Styrene	1	0.130	0.659	1.62E-08	0.390	6.33E-09	1.72E+04	5.44E+05	2.52E+08	9 50E+06	1.30E-04	15	1.05E+04	1.06E-03	4 67E-02	1 75E-04	4.47E-04
98828	bopropybenzene	1	0.130	0.659	1.625-08	0.390	6.33E-09	1.72E+04	1.06E+06	2.52E+08	9.50E+08	1.30E-04	15	1.54E+03	1 28E-02	5 51E-01	1 75E-04	3 95E-04
79345	1,1,2,2-Tetrachloroethane	11	0.130	0.659	1.625-08	0.320	6,335-09	1.72E+04	1.15E+08	2.52E+08	9.50E+05	1,30E-04	15	1.05E+04	1.34E-04	5.77E-03	1.75E-04	5.65E-04
541731	Dichlorobenzene, 1,3-	1	0.130	0.659	1.62E-08	0.390	6.336-09	1.72E+04	1.00E+0Z	2.52E±05	9.50E+08	1.30E-04	15	1.50E+03	4.11E-03	1.77E-01	1.75E-04	2.58E-04
106457 85501	1,4-Dichlorobenzene 1,2-Dichlorobenzene	1	0.130	0.659	1.62E-08	0.390	6.33E-09	1.72E+04	2.50E+02	2.52E+06	9.50E+08	1.30E-04	15	1.12E+04	8.69E-04	3.83E-02	1.75E-04	4.38E-04
120821	1,2-Dichlorobenzane	1 1	0.130	0.659	1.62E-08	0.390	6.33E-09	1.72E+04	5.10E+01	2.52E+05	0.50E+05	1,30E-04	15	1.21E+04	6.51E-07	2.37E-05	1.75E-04	3.94E-02
100527	Benzaldehyde	 }	0.130	0.659	1.62E-08	0.390	6.33E-09 6.33E-09	1.72E+04 1.72E+04	1.13E+05	2.52E+06	8.50E+06		15	1,32E+04	4,35E-04	1.87E-02	1.75E-04	2.25E-04
91576	Melhylnaphihaiene, 2-		0.130	0.659	1.62E-08	0.390	6.33E-09	1.72E+04 1.72E+04	1.74E+06 6.41E+03	2,52E+08 2,52E+08	9.50E+06 9.50E+08	1.30E-04	15	1.53E+03 1.51E+03	2.29E-05	9.84E-04	1.75E-04	1.35E-03
92524	Biohenvi, 1.1	 	0.130	0.859	1.62E-08	0.390	6.33E-09	1.72E+04	8.81E+04	2.52E+08	9.50E+06	1,30E-04	15	47E+03	8.85E-04 2.55E-04	3.81E-02 1.14E-02	1.75E-04 1.75E-04	3.13E-04 3.15E-04
208968	Acenaphiliylene		0.130	0.659	1.62E-08	0.390	6.33E-09	1.72E+04	4.00E+02	2.52E+08	9.50E+06	1.30E-04	15	1.51E+03	2.45E-04	1.056-02	1.75E-04	3.15E-04 3.38E-04
63329	Acenaphihene	1	0.130	0.659	1.62E-08	0.390	6.33E-09	1.72E+04	6.09E+04	2.52E+08	9.50E+08	1,30E-04	15	1.61E+04	3.67E-06	1.58E-03	1.75E-04	7,33E-04
132649	Dibenzofuran	1	0.130	0.659	1.62E-08	0.390	8.33E-09	1,72E+04	1,79E+03	2.62E+06	8.50E+08	130E-04	15	1.47E+03	3.51E-03	1.51E-01	1.75E-04	1.66E-04
66737	Fluorene	1	0.130	0.659	1.62E-08	0.390	6,33E-09	1.72E+04	2.97E+04	2.52E+06	9 50E • 05	1.30E-04	15	1.62E+04	2.20E-08	9.48E-07	1.75E-04	8.16E-01
85018	Phenanthrene	1	0.130	0.659	1.62E-08	0.390	6.33E-09	1.72E+04	3.64E+04	2.52E+06	9.50E+06	1.30E-04	15	1.48E+03		4.90€-03	1,75E-04	3.50E-04
120127	Anthracene	1	0.130	0.659	1.626-08	0,390	6.33E-09	1,72E+04	2.57E+03	2.62E+06	9.50E+08	1.30€-04	15	1.84E+04		5.43E-04	1.75E-04	1.60E-03
C5-C8	C5-C6 Allohalics	1	0.130	0.659	1.62E-08	0,390	6.33E-09	1,72E+04	9.83E+04	2 52E+06	9.50€+08	1.30E-04	15	NA.	6.48E-01	2.79E+01	1.75E-04	3.64E-04
C9-C12	C9-C12 Aliphatics	1	0.130	0.659	1.62E-08	0.390	5.33E-09	1.72E+04	6.11E+04	2.52E+06	9.50E+08	1,30€-04	15	NA.	7.80E-01	3.36E+01	1.75E-04	3.64E-04
C9-C10	C9-C10 Aromatics	1	0.130	0.659	1.62E-08	0.390	6,33E-09	1.72E+04	4.31E+05	2.52E+08	9.50E+08	1.305-04	15	NA NA	3.98E-03	1.70E-01	1.75E-04	3.69E-04
C9-C18	C9-C18 Aliphatics	1	0.130	0,659	1.62E-08	0.390	6,33E-09	1.7756+04	5.04E+00	2.62E+06	9.50E+08	1.30E-04	15	, NA	8.28E-01	3.68E+01	1.76E-04	3.64E-04
C11-C22	C11-C22 Aromatics	1	0.130	0,659	1.62E-08	0.390	6,33E-09	1.72E+04	4.10E+08	2.52E+05	9.50E+06	1.30E-04	. 15	NA.	3.60E-04	1.55E-02	1.75E+04	4.27E-04

Appandix C 4
Johnson & Ettinger Model - Data Entry Screen
Inhalation of Volatiles from Soit
Future Commercial Scenario - RNE
Southweat Pretries, Welle GöH Superfund Site. Operable
Whitney Barnal

Chemical		Diffusion path	Convection path	Soil-water partition	Source vapor	Crack	Average Vapor Now rate	Crack effective diffusion	Area of	Exponent of equivalent foundation Pedet	Infinite source indoor ettenuation	Infinite source bldg.	Unit risk	Reference
CAS No.		length,	length.	coefficient,	CORC	radius,	into bidg.	coefficient,	crack.	number.	coefficient,	conc.,	factor,	conc.,
(numbers only,	•	L,	L,	K,	C	-		Domok	Auren	exp(Parl)	a	Coulding	URF	RfC
no dashes)	Chemical	(cm)	(cm)	(cm²/g)	(htt/w _p)	(cm)	(cm³/s)	(cm²/s)	(cm²)	(unitiess)	(unitless)	(µg/m³)	(μg/m³)·1	(mg/m³)
96838	Trimethylbenzene, 1,2,4-		15	7.43E+00	N/A	0.10	2.74E+01	4.77E-04	1,23E+03	2.75€+303	1.08E-05	N/A	N/A	8.0E-03
540590	Dichloroethylene, 1,2- (total)		16	2.67E-01	N/A	0.10	2.74E+01	3.77E-04	1.23E+03	#NUMI	1.08E-05	N/A	*N/A	#N/A
108678	Trimethylbenzene, 1,3,5-	1	15	3.34E+00	N/A	0.10	2.74E+01	3.96E-04	1,23E+03	#NUM	1.086-05	N/A	N/A	8.0E-03
104518	n-Butylbenzene	1	15	6.02E+00	N/A	0.10	2.74E+01	4.41E-04	1.23E+03	#NUM	1.08E-05	N/A	#N/A	#N/A
91203	Naphthalene	1	15	4.00E+00	4.27E+03	0.10	2.74E+01	4.70E+04	1 23E+03	9.87E+307	1.08E-05	4.61E-02	N/A	3.0E-03
135988	Eurybenzene, sec-	····	16	3.18E+00 8.22E+01	N/A N/A	0.10	2,74E+01 2,74E+01	4.39E-04 4.86E-04	1,23E+03 1,23E+03	#NUM 6.47E+297	1.08E-05 1.08E-05	N/A N/A	N/A #N/A	4.0E-01
74873	Chloromethane	-	16	2.88E-02	3.24E+06	0.10	2.74E+01	7.66E-04	1.23E+03	1.14E+169	1.08E-05	3.512+00	N/A	9.0E-02
75014	Vinvi chioride		15	3 72E-02	6.48E+05	0.10	2.74E+01	8.44E-04	1.23E+03	5.27E+224	1.08E-05	8.99E+00	8.8É-08	1.0E-01
74839	Bromomelhane	1	15	2.88E-02	N/A	0.10	2.74E+01	4.48E-04	1.23E+03	#NUM!	1.08E-06	N/A	N/A	5.0E-03
75003	Ethyl Chlorida	1	16	2.88E-02	1.125+05	0.10	2.74E+01	7.66E-04	1,236+03	1.14E+169	1.08E-05	1.21E+00	N/A	1.0E+01
75354	1,1-Dichloroethylene		15	1.18E-01	2.04E+05	0.10	2.74E+01	5.47E-04	1,23E+03	3.62E+284	1.08E-05	2.21E+00	N/A	2.0€-01
76131	Trichloro-1,2,2-triflouroethane, 1,1,2-	1	16	4.50E-01	N/A	0.10	2.74E+01	1.75E-04	1.23E+03	#NUM)	1.07E-05	N/A	N/A	3.0E+01
07841	Acelone	1	16	1.15E-03	1,376+03	0.10	2.74E+01	2 07E-03	1,23E+03	9.185+69	1 09E-05	1 48E-02	N/A	N/A
75150 79209	Carbon Diaulfide	1	16	1.03E-01	N/A	0.10	2.74E+01	8.34E-04	1.23E+03	1.25E+228	1.00E+05	N/A	N/A	7.0E-01
75092	Melhyl Acetate Melhylene chloride	<u>-</u>	16	6.64E-03	N/A	0.10	2.74E+01	8.61E-04	1,23E+03	1,17E+168	1.08E-05	1,73E+00	#N/A 4.7E-07	#N/A 3.0E+00
158805	trans-1,2-Dichloroethylene	 	16 15	2.34E-02 1.05E-01	1.60E+05 5.20E+04	0.10	2.74E+01 2.74E+01	8.35E-04 4.32E-04	1,23E+03 1,23E+03	6.55E+22T	1.06E-06 1.06E-05	8.85E-01	N/A	2.0E-01
1634044	Melhyl-Tertlary-Butyl Ether		15	7.68E-02	4.58E+03	0.10	2.74E+01	6.87E-04	1,23E+03	9.48E+218	1.08E-06	4.98E-02	N/A	3 0E+00
75343	1,1-Okthoroethane	—	15	8.32E-02	1.82E+05	0.10	2.74E+01	4.58E-04	1.23E+03	#NUMI	1.08E-05	1.75E+00	N/A	5.0E-01
158502	cis-1,2-Dichloroelhylene		15	7.10E+02	5.66E+04	0.10	2.74E+01	4.59E-04	1.23E+03	BNUM	1,08E-05	8.12E-01	N/A	2.0E-01
78933	Butanone, 2- (MEK)		15	7.66E-03	N/A	0.10	2.74E+01	9.45E-04	1.23E+03	1.18E+153	1.08E-05	N/A	N/A	N/A
71550	1,1,1-Trichioroethane	1	15	2.20E-01	N/A	0.10	2.74E+01	4.75E-04	1.23E+03	4.35E+304	1,056-05	N/A	N/A	2.2E+00
110827	Cyclohexane	1 "	15	3.206-01	N/A	0.10	2.746+01	4,85E-04	1,236+03	3,16E+298	1.08E-06	N/A	#N/A	#N/A
71432	Benzene	1	15	1.18E-01	7.41E+04	0.10	2.74E+01	5.42E-04	1.23E+03	1.81E+267	1.08E-05	8.02E-01	7.8E-08	3.0E-02
79015	Trichiaroethylene		15	3.32E-01	1.09E+06	0.10	2.74E+01	4.83E-04	1.23E+03	3.77E+299	1,08E-05	1.18E+00	1.1E-04	4.0E-02
108872	Methyl cyclohexane	1	15	5.36E-01	3,35E+06	0.10	2.74E+01	5.98E-04	1,23E+03	1.50E+242	1.08E-05	3.62E+01	N/A	3.0E+00
108883 127184	Toluene Teltachioroethylene	1	15	3,64E-01	1,28E+05	0.10	2.74E+01	5.34E-04	1.23E+03	1.10E+271	1.06E-05	1.39E+00	5.9E-06	4 OE-01
108907	Chlorobenzene	 	15 15	3.10E-01 4.38E-01	9,19E+04 3,21E+04	0.10	2.74E+01 2.74E+01	4.39E-04 4.56E-04	1,23E+03	#NUM #NUM	1.08E-06	9.82E-01 3.46E-01	N/A	6 OE-02
100414	Ethylbenzene		15	7.28E-01	2.68E+04	0.10	2.746+01	4.50E-04	1,23E+03 1,23E+03	#NUM	1.08E-05	2.90E-01	IVA	1.0E+00
1330207	Xylenes	1	15	4.82E-01	N/A	0.10	2.74E+01	3.76E-03	1.23E+03	4.03E+38	1.09E-05	N/A	N/A	1.0E-01
100425	Styrene	 	15	1.56E+00	N/A	0.10	2.74E+01	4.47E-04	1.23E+03	#NUM	1.08E-05	N/A	#N/A	#N/A
98525	Isopropylbenzene	i	15	1.86E+01	N/A	0.10	2.74E+01	3.95E-04	1,23E+03	#NUM	1.08E-05	N/A	NA	4.0E-01
70346	1,1,2,2-Tetrachloroethane	1	15	1.87E-01	N/A	0.10	2.74E+01	5.66E-04	1,23E+03	1.98E+256	1.08E-05	N/A	#TVA	#N/A
541731	Dichlorobenzene, 1,3-	1	15	3,40€-01	3.19E+04	0.10	2.74E+01	2.58E-04	1.23E+03	#NUM!	1.07E-05	3.42E-01	N/A	N/A
106467	1,4-Dichlorobenzene	1	15	1,23E+00	6.56E+03	0.10	2.74E+01	4,38E-04	1,23E+03	MNUMI	1.08E-06	7.19E-02	N/A	8.0E-01
95601	1,2-Olchlorobenzene	11	15	1.07E-01	3.94E+00	0,10	Z 74E+01	3.94E-02	1.23E+03	4.74E+03	1.09E-05	4 28E-06	N/A	N/A
120821	1,2,4-Trict-lorobenzene	1	15	3.56E+00	N/A	0.10	2.74E+01	2.25E-04	1.23E+03	MUNI	1.07E-05	N/A	N/A	2.0€-01
100527	Senzaldehyde	1	15	6.54E-02	N/A	0.10	2.74E+01	1.35E-03	1.23E+03	2.80E+107	1.08E-05	N/A	#N/A N/A	#N/A
91576 92524	Methylnaphihalens, 2- Siphenyl, 1,1'-		15	1.70E+01 1.25E+01	1.20E+04 N/A	0.10	2.74E+01 2.74E+01	3,13E-04 3,16E-04	1.23E+03	#NUMI	1.08E-06 1.08E-05	1.29E-01 N/A	N/A N/A	3.0E-03
208988	Acersohimiene	1	15	9.57E+00	4.31E+02	0.10	2.74E+01	3.38E-04	1.23E+03 1.23E+03	#NUM	1.08E-05	4.64E-03	N/A	3.0E-03
83329	Acensphilhene	1	15	1.42E+01	N/A	0.10	2.74E+01	7.33E-04	1,23E+03	2.13E+197	1.08E-05	N/A	N/A	3.0E-03
132649	Dibenzofuren		15	1.83E+Q1	1.84E+04	0,10	2 74E+01	1,55E-04	1.23E+03	WNUM	1.07E-05	1.75E-01	N/A	N/A
88737	Fluorene		15	1.54E+01	N/A	0.10	2.74E+01	8,16E-01	1.23E+03	1.50€+00	3.246-06	N/A	N/A	3.0E-03
85018	Phenanthrene	i	15	2.63E+01	6.27E+03	0.10	2.74E+01	3.50E-04	1 23E+03	#NUM	1.085-05	8.76E-02	N/A	3.0€-03
120127	Anthracene	1	15	5.90E+01	N/A	0.10	2.74E+01	1.80€-03	1.23E+03	5.14E+90	1.08E-05	N/A	N/A	3.0E-03
C5-C8	C5-C8 Aliphatics	11	15	4.53E+00	3.64E+08	0.10	2.74E+01	3,84E-04	1.23E+03	#NUMI	1.08E-06	4.14E+03	N/A	2.0E-01
C9-C12	C9-C12 Aliphatics	1	15	3.00E+02	6.76E+06	0,10	2.74E+01	3.84E-04	1.23E+03	#NUM:	1.08E-05	7,29E+01	N/A	2.0E-01
C9-C10	C9-C10 Aromatics	1	15	3.56E+00	1.95€+07	0.10	2.74E+01	3.59E-04	1,23E+03	#NUM	1.00E-05	2.10€+02	N/A	5.0E-02
C9-C18	C9-C18 Aliphatics	1	15	1.36E+03	1.68E+08	0.10	2.74E+01	3.54E-04	1.23E+03	#NUM	1.08E-05	1.70E+03	N/A	2.0E-01
Q11-C22	C11-C22 Aromatics		15	1.00E+01	8.23E+08	0.10	2.74E+01	4.27E-04	1.23E+03	#NUM)	1.08E-05	8.72E+01	N/A	5.0E-02

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Accordor C. 4
Johnson & Edinger Model - Date Entry Screen
Inhalation of Votalities from Soil
Future Commercial Scanario - PAME
Southwest Proteties, Wiele G&H Superfund Site, Coorable Unit 2
Whitper Bartel

RISK-BASED SOIL CONCENTRATION CALCULATIONS:

INCREMENTAL RISK CALCULATIONS:

Chemical CAS No. (numbers only,	·	indoor woodund eoil conc., carcinogen	Indeor secolure soil conc., noncercinogen	Risk-based Index exposure soil conc.,	Soli exteration conc., C _{en}	Final indoor exposure soil conc.,		Incremental risk from vapor Intrusion to indoor air. cardinogen	Hezerd quotient from vapor intrusion to indoor er, noncerolnogen	
no dashee)	Chamical	(μαkg)	(ug/kg)	(µg/kg)	(µg/kg)	(µg/kg)		(unitiees)	(unitiess)	
95636	Trimedis/benzere, 1,24-	NA	NA.	NA	1.395+05	NA .		NA	NA NA	
540590 108678	Dichioroethylene, 1.2- (total)	NA NA	NA NA	NA NA	5.96E+02	NA NA		NA .	NA NA	
106678 104518	Trimethylbenzene, 1,3,5- n-Butylbenzene	NA NA	NA NA	NA NA	7.13E+04 6.63E+03	NA.		22		
91203	Machibialisms	NA.	Ē	NA	1.30E+05	N/A		NU,	3,5E-03	
99876 135968	leopropytokiene, 4- Butythenzane, seç-	NA NA	NA NA	NA NA	7.31E+05 1.10E+08	NA NA		NA .	NA NA	
74873	Chicromethane	NA.	NA .	NA.	1.37E+00	NA.		NA.	8.9E-03	
75014 74539	Vinyl chicride Sromomethane	NA NA	\$ \$Z	NA NA	8,33E+06 3,69E+06	- #-		5.0E-06 NA	1.6E-02 NA	
75003	Ethyl Chloride	NA.	77	NA.	1,37E+00	NA.		NA	2.8E-06	
75354 76131	1,1-Dichloroetylene	NA.	NA NA	NA NA	6.39E+05	NA NA		NA NA	2.5E-03 NA	
70131 67645	Trichiore-1,2,2-frificuroethere, 1,1,2- Acetone	- NA	- NA	NA NA	3.99E+06 2.01E+08	NA		NA.	NA.	
75150	Carbon Disultide	NA.	NA.	NA .	6,78E+05	NA		NA .	NA_	
79209 76092	Methyl Acutate Methylene chloride	NA NA	NA NA	NA NA	5.03E+07 2.96E+06	NA NA		NA 5,6€-08	1.3E-04	
166605	trans-1.2-Dichicrosthrians	NA .	NA.	NA.	2.12E+06	NA		NA.	1.0E-03	
1834044 75343	Metryl-Tertlery-Butyl Ether	NA NA	NA NA	NA NA	1,42E+07 1,39E+08	NA NA		NA NA	3.8E-06 8.0E-04	
156592	1,1-Dichloroethene cle-1,2-Dichloroethylene	NA.	NA.	NA NA	9,78E+05	NA NA		NA NA	7.0E-04	
78933	Butanons, 2- (MEK)	NA.	NA.	NA .	4.63E+07	NA.		NA NA	NA	
71556 110627	1,1,1-Trichlorosthans Cycloheume	NA.	NA NA	NA NA	6.01E+05	NA NA		NA NA	NA NA	
71432	Benzene	NA.	NA.	NA.	5,74E+05	NA.		5.1E-07	6.1E-03	
79018 108872	Trichlorosthylene Methyl cyclohexane	NA NA	NA NA	NA NA	6.05E+05	NA.		1.1E-05	6.7E-03 2.6E-03	
108883	Toluene	NÃ.	NÃ.	NA.	2.96E+04 3.02E+08	NA.		- NA	7.9E-04	
127184	Tele and the continuous	NA.	NA.	NA NA	1.08E+05	NA.		4.8E-07	NA 1.3E-03	
108907	Chlorobenzene Ethylbenzene	NA NA	NA NA	NA NA	3 04E+05 1.58E+05	NA		NA	1.3E-03	
1330207	Xylenes	NA	NA.	NA.	1.50E+05	NA.		NA.	NA NA	
100426 96828	Streme leopropylbenzene	NA NA	NA NA	NA NA	6.44E+06 1.06E+06	NA NA		NA NA	NA.	
79345	1,1,2,2-Tetrachlorostiums	NA_	NA.	NA	1.15E+05	. NA .		NA	7	
541731 108467	Dichloroberusme, 1,3- 1,4-Oichlorobenzene	NA NA	HA HA	***	3,62E+04 1,06E+05	NA NA		NA	NA 2.1E-05	
95501	1,2-Okhiorobenzene	NA	NA.	, NA	8.50E+06	NA		NA	NA	
120821 100627	1,2,4-Trichtorobenzene	NA NA	NA.	3	1.13E+06	NA NA		NA NA	NA NA	
100627 91575	Benzaldehyde Methylmaphthalena, 2-	NA NA	NA.	NA.	1,74E+06 4,24E+05	NA NA	i	NA.	9.8E-03	
92524	Biphersi, 1,1'-	NA.	NA.	- 24	8.81.E+04	I \	i	NA.	NA.	
208968 83320	Acerechthylene Aceruphthene	NA NA	NA NA	NA NA	3,84E+04 6,09E+04	NA NA		NA.	3.5E-04	
132549	Districtures .	NA.	NA	NA.	1.65E+05	NA		NA.	NA.	
66737 65018	Fluorene Phonasshrene	NA NA	NA NA	HA. NA	2.97E+04 3.64E+04	NA NA	Į	NA NA	NA 5.16-03	
120127	Antrecane	NA.	NA NA	NA.	2.57E+03	NA		NA.	NA.	
C5-C8 C9-C12	CS-CS Allehatics C9-C12 Allehatics	NA NA	NA NA	NA.	7,85E+07 2,12E+07	NA NA		NA NA	4.7E+00 8.JE-02	
C9-C10	C9-C10 Aromatica	NA.	NA	NA.	1,92E+08	NA.	}	NA	9.66-01	
C9-C18 C11-C22	C9-C16 Alphatics C11-C22 Armatics	NA NA	NA.	- X	1.35E+07	NA.	i		1.9E+00 3.1E-01	
C11+G22	CTT-C22 Aromages	<u>N</u>	J NA	<u>NA</u>	6.925+07	NA.	ı		3,15-01	l
								95% UCL		
								Cancer Risk	95% UCL HI	
							TOTAL	2E-05	8.1E+00	
									_	
									= Cancer risk	
	Trimathylberteans, 1,2,4-	MESSAGE: Se	d conc. >= saturati	en (Caal), Risk	MO calculated	et Casal.			or HQ/Hr>1E	100
	Dichioroethylene, 1,2- (lotal)	MESSAGE: 84	al conc. >= ealurati	ion (Ceal), Risk	/HQ calculated	at Cost.				
	Trimetribenzene, 1,3,5- n-Buhibenzene	WESSAGE: 84	d cong. >4 esturad A cong. per saturad	lon (Ceal), Risk Ion (Ceal), Risk	AHQ calculated NAC calculated	at Coal. et Coal				
	Nasirthelene									
	lecoropytokiene, 4+ Rusybersene, sec-	MESSAGE S	ali conc. 74 saturati Ali conc. 24 saturati	ion (Casi), Risk ion (Casi), Risk	MQ calculated MG calculated	at Coal. at Coal				
	Chicrometrane									
	Virni chioride Romamethene	MESSAGE S	d cono. >= saturat	lon (Cast) Plak	AC calculated	at Cont				
	Ethyl Chicride									
	1,1-Dichlorostyviene Trichloro-1,2,2-inflourosthane, 1,1,2-	MESSAGE &	al conc. >= saturat	ion (Carris Risk	HO calculated	at Coat				
	Acetone									
	Carbon Disulfide Methyl Acetate	MESSAGE: S	al conc. ≥ saturat al conc. ≥ saturat	ion (Ceut). Riek Ion (Ceut). Rud	/HQ calculated /HQ calculated	at Coat. at Coat.				
	Methylane chloride									
	trane-1,2-Dichicrostrylene Methyl-Terlany-Butyl Ether									
	1,1-Dichloroethane									
	cie-1,2-Dichloroethylene Butanone, 2- (MEK)	MESSAGE S	oli cono, >= satural	lon (Guat), Pink	AHQ calculated	et Coat.				
	1,1,1-Tricherouthane	MESSAGE: S	oli cono. 🕶 saturat	ion (Cast), Risk	HQ calculated	ed Coat.				
	Cycloheoene Benzene	MESSAGE; S	al cons. >= sutural	rom (Çavat), Hüsk	INC CHOUSED	er CER.				

Accerdit C.A.
Johnson S Ethnor Model - Dela Enford Screen
Innation of Woldfer Iron Spit
Future Commercial Scenario - CT
Southwest Promises Wells Glidt Scenario Ste. Oceanible Unit 2
Whiter Berny
Whiter Scenario

CALCULATE PUBK-BASED SOIL CONCENTRATION (enter "X" in "YES" bin)

SL-SCREEN Varsion 2.3; 03/01

OR

CALGULATE INCREMENTAL RISKS FROM ACTUAL, SOUL CONCENTRATION WHILE "X" In THE BUT BUT IN INTER BOTH SOULD INSERT

	ENAN INDIA SOE CO	ncentration.	gerzen Decih	ENTER	ENTER	EMTER		ENTER												
ENTER		ENTER	Delice crede			Vertice zone		Uper-pathed	ENTER	EKTER	ENTER	ENTER	ENTER	RSTAS	EMTER	ENTER	ENTER	ENTER	ENTER	ENTER
Chemical		Magn	(o bottom of enclosed	Depth below erade to top	Avertice	8C9 4081904		vektore zone noli venor	Vedore core	Vacione zone and lotal	Vaccos core	Vacces zone	Averaging	Avenages	•			_	Tatos	Target hazard
CAS No.		conc.	enege floor.	of contemination,	inversium.	Aread to estimate	e OR	Dermeebiling	Duff decement	DOMONEY.	poli meter-hand porosiliv	edi arasık amban hedion.	lime for cercinocere.	firm for representations.	Excesure duration.	frequency.	Executation	Coverage	rink tor certifications.	tuxtient for toncertinggens.
(numbers only,		GR.	L	LI	T _e	40f suppor		4	Pa ^A	n*	6_*	f"	ATC	ATNE	ED.	EP.	हा	ÇF.	TH	THQ
/ii) ((pp/yee)	Chemical	(vg1·g)	(18 or 200 pm)	(pm)	(fo)	permeability)	Note _	(cm)	(g/om³)	(unites)	(cm²/cm²)	(unit legs)	(vre)	(MII)	Dermit.	(devent)	(hm/dey)	(harks)	(unities)	(ACETHOR)
Maria	Trimethytherizane, 1,2,4-		10	16	10	LB														
Here	Dichlorosthylane, 1,2- (lotal)	1	18	16	10	LS	+ ; +		1.5	0 43	03	0.002	70 70	9		219		8750	1.0E-06	
19679	Trimethybergene, 1.3.5-	1	15	15	19	LS	+ ; +		1.5	043	03	0.002	- 7a	3		219		8760	1.0E-06	+
104518	n-Bundbenzene	 	15	16	10	UB	┿┿┪		15	043	03	0.002	70	-		219	-	8760 8760	1.0E-08	
p1300	Naphthalene	2,746+03	15	15	10	63	1 1		1.5	0 43		0.002	70	3	-	210		6760	1.0E-06	
Nos74	leopropykoluene, 4-	1	15	16	10	LB	1		16	043	0.3	0 002	70	9		210		5760	1.0E-06	+++
120000	Butybenzene, sec-		15	16	10	l\$	1-1-1		16	0.43	0.3	0.002	7a	9		210		6760	1.06-06	1
Fea73	Chloromethane	2.49E+02	15	18	10	Ú.B	1		16	0.43	03	0 002	70	9	-	218	8	6760	1.0E-06	1
79014	Viryl chloride	2.61E+02	15	18	10	rg.	. 1		1.5	0.43	0.3	0 002	70	9	· · ·	219	8	8780	1.0E-06	·
P-MARP	Bromomethane		15	16	10	LB	1		18	0 43	03	0.003	70	9		210	6	6750	1.0E-06	1
79000	Ethyl Chloride	8 60E+01	15	15	10	Le.	1		1.6	0.43	0.3	0.002	70	9	9	110		6750	1.0E-06	
- Passa Passa	1,1-Dichloroethylene	8.34E+01	15	16	10	LB	1		1 8	0.43	0.3	0.003	70	3	, B	219	6	6760	1 0E-06	1
97941	Trichloro-1.2 2-iriflournethane 1.1.7-	3.245 02	15	1 13 1		LS	-			0.43	05	0.002	70			210		6760	1.0E-06	
19199	Carbon Disulfide	2.2.7.	16	15	10	La	1		15	0.43	0.3	0 002	70	- 3		210	6	8760	1.0E-08	
79900	Methyl Acetale	 	16	15	10	LS	 -;		18	0.43	0.3	0 002	70			219	- ;	6750	1.0E-06	+++
FIGUR	Metrylene chloride	7.27E+02	15	15	10	LG	+++		18	0.43	03	0 002	70			219	6	8750 6750	1.0E-06	
15eac#	trans-1,2-Dichloroethylene	7.73E+Q1	16	15	10	LS	1		1.6	0.43	03	0 002	70		-	219		8780	1.0E-06	+ ; +
1634044	Methyl-Tartlary-Butyl Ether	675€+01	15	718	10	LB	1.4			043	03	0 002	70	-	-	210	· · ·	8760	1.0E-06	-
F8343	f,1-Dichkroethane	3.58E+02	15	15	10	L8	1		1.5	0.43	03	0.002	70	9		219	i	8760	1.0E-06	+ + + + + + + + + + + + + + + + + + + +
158640	cie-1,2-Olchky cethylene	1.60E+02	15	18	10	L6	1		1.8	0.43	0.3	0.002	70			216		5760	1.0E-06	+ + + + + + + + + + + + + + + + + + + +
Padd	Butanone, 2- (MEK)		18	18	10	LS	1		16	0.43	03	0.002	70	-		219	8	8750	1 DE-08	
P1959	1,1,1-Trichloroethene		15	35	14	L& .	1		1.5	0.43	0.3	0.002	70	á		219	8	8780	1.0E-06	1
110427	Сустоненапе		15	16	10	LB	1		15	0.45	03 .	0.002	70	9		219	•	8760	1.0E-06	·
71432	Benzere	8.08E+01	16	15	10	LS	1		16	0 43	00	0 0x12	70	9	6	219	A	6760	1,0E-08	1 1
Page	Yrichloroethylene	2.91E+02	15	18	10	LS	1		1,5	0.48	03	0.002	70	9		218	8	876D	1.0E-06	1 1
106672	Mathyl cyclohexane	4.45E+02	16	15	10	l8	1		1.5	0.43	0.3	0.002	70		۵	ŜĠ		8760	1.0E-06	7
HAM	Tokume	3 85E+02 1 47E+02	16	18	10	LS	1		1.5	0.43	0.3	0.005	70	9	•	219		6760	1.0E-08	١ ١
15)(fr	Tetrachicrosthylens Chlorobenzone	11E-02	16	15	10	Lŝ	11.		1.5	0.43	0.3	0.002	70	1 2		6		8760	1.0E-08	1
100414	Ethylbercone	1.84E+02	10	15	10	LS LS	1			0 45	. 03	0.002	70	9	9	219		5760	1.0E-56	1
izzen	Xuenes	1.542.152	15	15	19	LS LB	1		1.5	0.43	0.3	0.002	70	9	,	219	8	6760	1.0E-06	 '
100420	Styrene	+	15	15	10	LS			1.5	0.43	0.3	0.002		9	В	719	8	8780	1.0E-08	1 1
***	leopropybenzene	_	15	15	10	LS	1		1.5	0.43	03	0 0002	70 70	9	9	219	8	6750	1.0E-06	1.1
1994	1,1,2,2-Tetrachiorosthana	į	16	 	10	1.8	+++		1.5	0.43	0.3	0.002	70		9	219	8	8780	1.05-08	
WITH	Cichlorobenzene, 1,3-	1006-02	15	15	10	lã	1		1.8	0.43	0.3	0.002	70	 	9	210		5760	1.06-06	+ ;
18647	1,4-Dichkroberusme	2 506+02	16	19	10	LS	11		1.5	043	0.3	9.002	70			219	ě.	8760 8760	1.05-06	+++
99607	1,2-Dichiorobenzene	5 10E+01	15	15	10	L&	1 1 -		1.5	0.43	0.3	0.002	70	•		219		5760	1,05-08	
130471	1,2,4-Trichlorobenzene		15	15	10	L8	1		1.8	0.43	0.5	9.002	20			219	-	6780	1.0E-08	
100037	Benzeidehyde		16	18	10	1.5	,		1.8	0.43	0.3	0.002	70	•	9	218	8	8760	1.085-08	
ma	Mathylnaphthalane, 2-	8.41E+03	16	19	10	į\$	7		1.5	0.43	6.3	0.002	70			3/9	- 6	8750	1,0E-05	
23034	Biphenyl, 1,1%		15	16	10	1.5	. 1		1.5	0.45	0.3	0 0072	70	9		219	- 8	8760	1.0E-06	1
300001	Acenaphthylene	4.00E+32	16	15	10	LŠ	1	1	1,8	0.43	03	0.002	70	- 1	6	219	ь	8780	1.06.06	1
432	Aceruphthene		16	15	10	Ls	3		1,5	0.43	03	0.002	70			219		8780	1.06-00	· · · · ·
12264	O/benzofuran	1.79E+03	15	15	10	1.5	1		t.5	0.43	03	0.002	70	B	Ç	219	6	8780	1.0€-06	1
a4717	Florens	L	16	16	10	LS	1		1.5	043	0.3	0.005	70	9	9	219	6	8780	1,06,408	,
en H	Phanshivene	3.56E+04	16	15	10	LS	1		(,5	0.43	0.3	0.002	70		9	570	- 6	8780	1.0E-06	3
120127	Anthracens C6-C6 Alchalics	B.ADE+OL	16	16	10	LS	1		1.5	0.43	0.3	g pag	70		0	210		8780	1.06-06	1
04-04	C6-C6 Alphalice C9-C12 Alighatics	6.11E-04	16	15	10	LS	1		1.6	0 43	03	0.002	70		9	219		6740	1.0E-08	1
C9-C10	C9-C12 Alignatos C9-C10 Aromatica	4.31E-05	15	15	10	LS	1.1		1.3	0.43	0.3	0.002	70	9	P	219		8790	1,0E-08	-1
cacu,	C9-C10 Aromatics	9.255-35	18	16	10	LS LS	14.1		1.5	0.43	0.3	0.007	70	<u> </u>		219	6	8760	1.0€-06	1
611-020	C11-G22 Aromatics	9.24E-06	15	 ; 	10	LS US	1		1.5	0.43		0.002	70	9	•	219		8790	1,06-06	1
Barra	DITITUDE AND THE STATE OF THE S	A-6-E-00	L	ر ،،	10	1			1.9	0.43	0.3	0.002	70	1		219	8	8780	1.0E-06	

Note:

1) Dissued and personation from lighter 7 of User's Outste for Evaluation Subscribes Viscor instrusion into Susseting (U.S. EPA Aims 19, 2000) were used for soft water Band parally (A_L soil organic centrus instant instant (A_L and soil powerly (A_L and soi

Appendix C.4
Johnson & Ettinger Model - Data Entry Screen
Inhalation of Volatiles from Soil
Future Commercial Scenario - CT
Southwest Prperties, Wella G&H Superfund Site, Operable Unit 2.
Whitney Barrel

Chemical CAS No. (numbers only.		Diffusivity In air, D.	Diffusivity in water, D.,	Henry's law constant at reference temperature, H	Henry's law constant reference temperature, T _R	Enthalpy of vaporization at the normal boiling point, ΔH _{v.b}	Normal boiling point, T _B	Critical temperature, T _c	Organic carbon partition coefficient, K∝	Pure component water solubility, S	Unit risk factor, URF	Reference conc., RfC	Physical state at soil temperature,
no dashes)	Chemical	(cm²/s)	(cm²/s)	(atm-m³/mol)	(°C)	(cal/mol)	(°K)	(ÅK)	(cm ³ /g)	(mg/L)	(μg/m ³)* ¹	(mg/m ³)	(S,L,G)
95636	Trimethylbenzene, 1,2,4-	7.80E-02	9.03E-06	5.70E-03	25	1.25E+03	442.30	649.11	3.72E+03	5.70E+01	N/A	6.0E-03	
540590	Dichloroethylene, 1,2- (total)	5.59E-02	6.47E-06	4,30E-04	20	1.32E+03	585.00	877.50	1,28E+02	1.30E+00	#N/A	#N/A	0.0E+00
108678	Trimethylbenzene, 1,3,5-	6,48E-02	7.86E-06	7.81E-03	25	1.25E+03	442.30	649.11	1.67E+03	2.00E+01	N/A	6.0E-03	L
104518	n-Butylbenzene	7.25E-02	8.39E-06	1,25E-02	25	1.23E+03	456.00	684.00	2.51E+03	1.26E+00	#N/A	#N/A	
91203	Naphthalene	5.90E-02	7.50E-06	4.83E-04	25	1.04E+04	491.14	748.40	2.00E+03	3.10E+01	N/A	3.0E-03	S
99876	fsopropyttoluene, 4-	7.25E-02	8.39E-06	8.60E+00	25	1.24E+03	450.10	652.04	1.58E+03	2.34E+01	N/A	4.0E-01	L
135988	Butylbenzene, sec-	8.00E-02	8.00E-06	1,67E-02	25	1.24E+03	446.65	669.98	3.11E+04	1.76E+01	#N/A	#N/A	0.0E+00
74873	Chloromethane	1.26E-01	6,50E-08	8.67E-03	25	1.35E+03	249.00	373.50	1.43E+01	5.32E+03	N/A	9.0E-02	0.0E+00
75014	Vinyl chloride	1.06E-01	1.23E-05	2.71E-02	25	5.25E+03	259.25	432.00	1.86E+01	2.76E+03	8.8E-06	1.0E-01	L
74839	Bromomethane	7.28E-02	1.21E-05	6.22E-03	25	5.49E+03	276.50	414.75	1,43E+01	1.52E+04	N/A	5.0E-03	0.0E+00
75003 75354	Ethyl Chloride	1.26E-01	6.50E-06	8.67E-03	25	1.36E+03	249.00	373.50	1.43E+01	5.32E+03	N/A	1.0E+01	L.
	1,1-Dichloroethylene	9.00E-02	1,04E-05	2.61E-02	25	6.25E+03	304.75	576.05	5.89E+01	2.25E+03	N/A	2.0E-01	L
76131	Trichloro-1,2,2-triflouroethane, 1,1,2-	2.88E-02	8.07E-06	5.17E-01	25	1.33E+03	320.70	481.05	2.25E+02	4.705.00	N/A	3.0E+01	0.0E+00
87641	Acetone	1.24E-01	1.14E-05	3.88E-05	25	6.96E+03	329.20	508.10	5.75E-01	1.70E+02 1.00E+06	N/A	N/A	.
75150	Carbon Disulfide	1.04E-01	1.14E-05 1.29E-05	1.27E-02	25 25	6.39E+03	319.00	552,00		2.67E+03	N/A .	7.0E-01	
79209	Methyl Acetate	1.04E-01	1.00E-05	1.13E-04	25	1.31E+03	365.00	547.50	5.14E+01 3.32E+00	2.43E+05	#N/A	#N/A	0.0E+00
75092	Methylene chloride	1.01E-01	1.17E-05	2.19E-03	25	6.71E+03	313.00	510.00	1.17E+01	1.30E+04	4.7E-07	3.0E+00	0.02+00
156605	trans-1,2-Dichloroethylene	7.07E-02	1.19E-05	9.39E-03	25	1.33E+03	320.85	516.50	5.25E+01	6.30E+03	N/A	2.0E-01	
1634044	Methyl-Terliary-Butyl Ether	1.02E-01	1.05E-05	5.87E-04	25	1.32E+03	328.36	497.11	3.84E+01	5.10E+04	N/A	3.0E+00	<u>-</u>
75343	1,1-Dichloroethane	7.42E-02	1.05E-05	5.61E-03	25	6.90E+03	330.55	523.00	3,16E+01	5.06E+03	N/A	5.0E-01	<u> </u>
156592	cis-1,2-Dichloroethylene	7.36E-02	1.13E-05	4.07E-03	25	7.19E+03	333.65	544.00	3.55E+01	3.50E+03	N/A	2.0E-01	- i
78933	Butanone, 2- (MEK)	8.08E-02	9.80E-06	5.60E-05	25	1.31E+03	352.50	528.75	3.83E+00	2.23E+05	N/A	N/A	0.0E+00
71556	1,1,1-Trichloroethane	7.80E-02	8.80E-06	1.72E-02	25	7.14E+03	347.24	545.00	1.10E+02	1.33E+03	N/A	2.2E+00	L
110827	Cyclohexane	8.00E-02	9.00E-06	2.00E+00	25	1.31E+03	353.65	530.78	1.60E+02	5.50E+01	#N/A	#N/A	0.0E+00
71432	Benzene	8.80E-02	9.80E-06	5.56E-03	25	7.34E+03	353.24	562.16	5.89E+01	1.75E+03	7.8E-06	3.0€-02	L
79016	Trichloroethylene	7.90E-02	9.10E-08	1.03E-02	25	7.51E+03	360.36	544.20	_1.66E+02	1.10E+03	1.1E-04	4.0E-02	L
108872	Methyl cyclohexans	9.86E-02	8.52E-06	4.23E-01	25	1.30E+03	373.90	560,85	2.68E+02	1.40E+01	N/A	3.0E+00	L
108883	Toluene	8.70E-02	8.60E-06	6.63E-03	25	7.93E+03	383.78	591.79	1.82E+02	5.26E+02	N/A	4.0E-01	L
127184	Tetrachloroethylene	7.20E-02	8.20E-06	1.84E-02	25	8.29E+03	394.40	620.20	1.55E+02	2.00E+02	5.9E-06	N/A	
108907	Chlorobenzene	7.30E-02	8.70E-06	3.71E-03	25	B.41E+03	404.87	632,40	2,19E+02	4.72E+02	N/A	6.0E-02	L
100414 1330207	Ethylbenzene	7.50E-02	7.80E-06	7.88E-03	25	8.50E+03	409.34	617,20	3.63E+02	1.69E+02	N/A	1.0E+00	
100425	Xylenes	7.69E-02	8.44E-06	6.73E-06	25	1.26E+03	417.40	616.21	2.41E+02	2.20E+02	N/A	1.0E-01	L.
98828	Styrene	7.10E-02 6.50E-02	8.00E-06	2.76E-03	25	8.74E+03	418.31	636.00	7.76E+02	3.10E+02	#N/A	#N/A	<u>L</u>
79345	Isopropylbenzene 1,1,2,2-Tetrachloroethane	7.10E-02	7.83E-06 7.90E-06	1.47E-02	25	1.26E+03	425.40	631.01	9.31E+03	5.60E+01	N/A	4.0E-01	<u> </u>
541731	Dichforobenzene, 1,3-	4.14E-02	8.85E-06	3.44E-04 4.70E-03	25 25	9.00E+03 1.24E+03	419.60 446.00	661.15 683.96	9.33E+01 1.70E+02	2.97E+03 6.88E+01	#N/A N/A	#N/A	<u> </u>
106467	1,4-Dichiorobenzene	6.90E-02	7.90E-06	2.43E-03	25	9.27E+03	447.21	684.75	6.17E+02	7.38E+01	N/A N/A	8.0E-01	S
95501	1,2-Dichloropenzene	6.88E-02	9.41E-06	1.62E-06	25	9.70E+03	465.00	697.50	5.34E+01	2.77E+04	N/A	N/A	S
120821	1,2,4-Trichlorobenzene	3.00E-02	8.23E-06	1,42E-03	25	1.05E+04	486.15	725.00	1.78E+03	3.00E+02	N/A	2.0E-01	
100527	Benzaldehyde	7.30E-02	9.07E-06	2.62E-05	25	1.24E+03	452.00	678.00	3.27E+01	8.57E+03	#N/A	#N/A	0.0E+00
91576	Methylnaphthalene, 2-	4.84E-02	7.75E-06	1.01E-03	25	1.17E+03	514.05	761.01	8.51E+03	2.46E+01	N/A	3.0E-03	s
92524	Biphenyl, 1.1'-	4.04E-02	8.15E-06	3.03E-04	25	1.15E+03	529.10	793.65	6.25E+03	6.94E+00	N/A	N/A	0.0E+00
208968	Acenaphthylene	4.43E-02	7.44E-06	2.80E-04	25	1.12E+03	553.00	792.01	4.79E+03	3.93E+00	N/A	3.0E-03	s
83329	Acenaphthene	4.21E-02	7.69E-06	1.55E-04	25	1.22E+04	550.54	803.15	7,08E+03	4.24E+00	N/A	3.0E-03	Š
132649	Dibenzofuran	2.67E-02	5.93E-06	4.00E-03	25	1.11E+03	559,00	824.01	8.13E+03	1.00E+01	N/A	N/A	s
86737	Fluorene	3.63E-02	7.88E-06	9.41E-08	25	1.27E+04	570.44	870.00	7.71E+03	1.90E+00	N/A	3.0E-03	š
85018	Phenanthrene	3.30E-02	7.47E-06	1.30E-04	25	1.06E+03	613.00	869.01	1.41E+04	1.28E+00	N/A	3.0E-03	s
120127	Anthracene	3.24E-02	7.74E-06	6.51E-05	. 25	1.31E+04	615.18	873.00	2.95E+04	4.34E-02	N/A	3.0E-03	S
C5-C8	C5-C8 Aliphatics	6.00E-02	1.00E-05	1.30E+00	25	NA	NA.	NA	2.27E+03	1.10E+04	N/A	2.0E-01	S
C9-C12	C9-C12 Aliphatics	6.00E-02	1.00E-05	1.56E+00	25	NA	NA	NA	1.50E+05	7.00E+01	N/A	2.0E-01	S
C9-C10	C9-C10 Aromatics	6.00E-02	1,00E-05	7.92E-03	25	NA	NA	NA	1.78E+03	5.10E+04	N/A	5.0E-02	S
C9-C18	C9-C18 Allphatics	6.00E-02	1,00E-05	1.66E+00	25	NA	NA	NA	6.60E+05	1.00E+01	N/A	2.0E-01	\$
C11-C22	C11-C22 Aromatics	6.00E-02	1.00E-05	7.32E-04	25	NA .	NA	NA	5.00E+03	5.80E+03	N/A	5.0E-02	S

Appendix C, 4
Johnson & Ettinger Model - Data Entry Screen
Inhalation of Volleties from Soil
Future Commercial Scenario - CT
Southwest Propries, Walls G&H Superfund Site, Operable Unit 2
Whitney Barrel

Chechical CAS No.		Source- building separation,	Vadose zone soil sir-filled pomatty.	Vadose zone effective total fluid saturation,	Vedose zone soli intrinsic permeability,	Vadose zone soli relative sir permesbility,	Vadose zone sod effective vapor permeability,	Floor- wall seam parimeter,	Initial soil concentration used,	Bldg. ventilation rate.	Area of enclosed space below grade,	Crack- to-total area ratio.	Crack depth below grade.	Enthalpy of reportization a ave. soil temperature.	constant at ave. soil	Henry's faw constant at ave. soil temperature.	Vepor viscosity at ave, soil temperature.	Vadose zone effective diffusion coefficient,
(numbers only,		LT	θ,ν	S _{in}	k _i	k _{re}	k,	Xcrack	CR	Christma	A	η	Z	ΔH _{v,78}	H _{TS}	нтѕ	ja _{TS}	D ^{ed} ,
no dashes	Chemical	(cm)	(cm³/cm³)	(cm³/cm³)	(cm²)	(cm²)	(cm²)	(cm)	(µg/kg)	(cm³/s)	(cm²)	(unilless)	(cm)	(cel/mol)	(alm-m³/mol)	(unitiess)	(g/cm-a)	(cm²/s)
96636	Trimelhylbenzene, 1,2,4-	5	0.130	0.658	1.62E-06	0.390	6.33E-09	1.72E+04	4.38E+05	2.52E+08	9.50E+06	1.30E-04	16	1.55E+03	4,986-03	2.136-01	1.75E-04	4.77E-04
540590	Dichloroethylens, 1,2- (total)	1	0.130	0.659	1.62E-08	0.390	6.33E-09	1.72E+04	5.96E+02	2.52E+08	9.50E+08	1.30E-04	15	1.73E+03	3.87E-04	1 67E-02	1.75E-04	3.77E-04
108878	Trimethylbenzene, 1,3,5-	1	0,130	0.659	1.62E-08	0.390	6.33E-09	1.72E+04	7.13E+04	2.52E+06	9.50E+06	1,30E-04	15	1.55E+03	6.80E-03	2.93E-01	1.76E-04	3.96E-04
104518	n-Bulylbenzene	1	0.130	0.859	1.62E-08	0.390	6.33E-09	1.72E+04	5.038+03	2.52E+08	9.50E+06	1.30E-04	15	1,53E+03	1.09E-02	4.69E-01	1.755-04	4.41E-04
91203 99876	Naphthalene	1	0.130	0.659	1.82E-08	0.390	6,33E-09	1.72E+04	2.74E+03	2.62E+08	9.50E+06	1.30E-04	16	1.29E+04	1.52E-04	0.55E-03	1.76E-04	4.70E-04
135988	Isopropyticiuene, 4- Butylbenzene, sec-	1-1-	0.130	0.859	1,62E-08	0.390	6.33E-09	1.72E+04	7.31E+05	2.52E+08	9.50E+06	1.30E-04	16	1.57E+03	7.48E+00	3.22E+02	1.76E-04	4.39E-04
74873	Chioromethane	1 1	0.130	0.859	1.82E-08	0.300	6,33E-09	1.72E+04	1.10E+08	2.52E+06	9.50E+06	1.30E-04	15	1,53E+03	1.48E-02	8.27E-01	1,75E-04	4.88E-04
75014	Vinyl chioride	 	0.130	0.659	1.62E-08	0.390	6.33E-09	1.72E+04	2.49E+02	2.52E+08	9.50E+08	1.30E-04	15	1.20E+03	7.79E-03	3.35E-01	1.76E-04	7.66E-04
74839	Bromomethane	 	0.130	0.659	1.82E-08	0.390	6.33E-09	1,72E,+04	2.61E+02	2 52E+06	9.50E+08	1.30E-04	15	5.00E+03	1,73E-02	7.465-01	1.75E-04	6.44E-04
75003	Ethyl Chloride	1 - 1 -	0.130	0.659	1.62E-06	0.390	6,33E-09 6.33E-09	1.72E+04 1.72E+04	3.69E+06 8.80E+01	2.52E+08 2.52E+08	9.50E+08	1.30E-04 1.30E-04	16 15	5.39E+03	3.64E-03 7.78E-03	1.66E-01 3.35E-01	1.76E-04 1.75E-04	4.48E-04 7.66E-04
75354	1,1-Dichloroethylene	1 - 1	0.130	0.659	1.82E-08	0.390	5.33E-09	1.72E+04	8.34E+01	2.52E+08	9.50E+06	1.30E-04	15	1.20E+03 6.39E+03	1.47E-02	8.34E-01	1,75E-04	5.47E-04
76131	Trichloro-1,2,2-Iriflouroelhane, 1,1,2-	1	0.130	0.869	1.82E-08	0.390	6.33E-09	1.725+04	3.99E+05	2 52E+08	9.50E+08	1.30E-04	16	1.44E+03	4.55E-01	1.98E+01	1.75E-04	1.75E-04
67641	Acetone	1	0.130	0.659	1.82E-08	0.390	6,33E-09	1.72E+04	3.24E+02	2.52E+06	9.50E+08	1.30E-04	16	7.58E+03	1.97E-05	8.50E-04	1.75E-04	2.07E-03
75150	Carbon Disulfide	1	0.130	0.659	1.62E-08	0.390	5.33E-09	1,72E+04	8.78E+05	2.52E+06	9.50€+06	1.30E-04	15	6.68E+03	6.99E-03	3.01E-01	1,75E-04	5.34E-04
79209	Melhyl Acetale	1	0,130	0.669	1.62E-08	0.390	6.33E-09	1.72E+04	5.03E+07	2.52E+08	9.50E+06	1.30E-04	15	1.50E+03	9.68E-05	4.25E-03	1.75E-04	8.61E-04
75092	Melhylene chloride	1-1-	0.130	0.669	1.82E-08	0.390	6.33E-09	1.72E+04	7.27E+02	2 52E+08	9.50E+08	1.30E-04	15	7,03E+03	1.17E-03	6.03E-02	1.75E-04	8.35E-04
158605	trans-1,2-Dichloroethylene	11	0.130	0.669	1.62E-08	0.390	6,33E-09	1.72E+04	7.73E+01	2,52E+08	9.50E+08	1.30E-04	15	1,42E+03	8.27E-03	3.68E-01	1.75E-04	4.32E-04
1634044	Methyl-Tertiery-Butyl Ether	1	0.130	0.659	1.62E-08	0.390	6.33E-09	1.72E+04	5.75E+01	2.52E+08	9.50E+06	1.30E-04	15	1,45E+03	5,16E-04	2.22E-02	1.75E-04	8.67E-04
75343	1,1-Dichloroethane		0.130	0.659	1.62E-08	0.390	6.33E-09	1.72E+04	3.58E+02	2.52E+08	9.50E+08	1.306-04	15	7,45E+03	2,685+03	1.24E-01	1,75E-04	4.58E-04
156592	cls-1,2-Dichloroethylene	1	0.130	0.659	1,62E-08	0.390	6,33E-09	1.72E+04	1.60E+02	2.52E+06	9.50E+06	1.30E-04	15	7.73E+03	2.04E-03	8.77E-02	1.75E-04	4.59E-04
76933	Butanone, 2- (MEK)	1	0.130	0.559	1.62E-08	0.390	6.33E-09	1.72E+04	4,53E+07	2.52E+06	9,50E+06	1.30E-04	15	1.49E+03	4.90E-05	2.11E-03	1.75E-04	9.45E-04
71550 110827	1,1,1-Trichloroethane	1 1	0.130	0,659	1.026-00	0.390	6.33E-09	1.72E+04	6.01E+05	2.52E+06	9.50E+06	1.30E-04	15	7.88E+03	8.50E-03	3.66E-01	1.75E-04	4.75E-04
7143Z	Cyclohexane	 !	0.130	0.659	1.82E-08	0.390	6,93E-09	1,72E+04	3.88E+05	2.52E+08	9.50E+06	1.30E-04	15	1,49E+03	1,76E+00	7.54E+01	1.75E-04	4.85E-04
79018	Benzena Trichioroethylene	1 - 1	0.130	0,659	1.82E-08	0.390	6.33E-0 0	1.72E+04	8.08E+01	2.52E+08	9.50E+08	1.30E-04	15	8.12E+03	2.09E-03	1,16E-01	1,75E-04	5.42E-04
108872	Methyl cyclohexane	1 2	0.130	0.659	1.82E-08	0.300	6,33E-09	1.72E+04	Z.91E+02	2.52E+08	9.50E+06	1.30E-04	15	8.58E+03	4 79E-03	2.08E-01	1.75E-04	4.83E-04
108883	Toluene	1 1	0.130	0.659	1.62E-08	0.390	6.33E-09	1.72E+04	4.45E+02	2.52E+06	9.50E+08	1.30E-04	15	1.51E+03	3.70E-01	1.50E+01	1.75E-04	5,98E-04
127184	Tetrachionositrylene	+ + -	0.130	0.659	1.82E-08	0.390	6.33E-09	1.72E+04	5.85E+02	2.52E+08	9.50E+00	1.30E-04	15	9.15E+03	2.92E-03	1.28E-01	1.75E-04	5,34E-04
106907	Chlorobenzene	 	0.130	0.559	1.62E-08	0.390	6.33E-09 6.33E-09	1,72E+04 1,72E+04	1.47E+02	2.62E+06	9.50E+00	1.30E-04	15	9.56E+03	7.83E-03	3.37E-01	1.75E-04	4.39E-04
100414	Ethylpenzene	1	0.130	0.659	1.82E-08	0.390	6.33E-09	1.72E+04	3.11E+02 1.84E+02	2.526+06	9.50E+08 9.50E+08	1.30E-04	15	9.60E+03	1.54E-03	6.65E-02	1.75E-04	4.56E-04
1330207	Xylenes	 	0.130	0.659	1.02E-08	0.390	6,33E-09	1.72E+04	1.64E+02	2.52E+06	9.50E+08	1.30E-04 1.30E-04	15	1,02E+04	3.18E-03	1.37E-01	1.75E-04	4,60E-04
100425	Styrene	 	0.130	0.659	1.62E-08	0.390	6.33E-09	1.72E+04	5.44E+05	2.52E+08 2.52E+08	9.50E+08		15 15	1.546+03	5.88£-05	2.52E-04 4.67E-02	1.75E-04 1.75E-04	3.75€-03 4.47E-04
98828	Impropylbenzene	1 1	0.130	0.669	1.52E-08	0.390	6.33E-09	1.72E+04	1.06E+06	2.525+06	9.50E+08	1,30E-04 1,30E-04	15	1.05E+04 1.54E+03	1.08E-03 1.28E-02	4.67E-02 5.51E-01	1.75E-04	3.96E-04
79345	1,1,2,2-Tetrachtproethane	1 1	0.130	0.659	1.826-08	0.390	6.33E-09	1.72E+04	1.15E+08	2.52E+06	9.50E+06	1,30E-04	15	1.05E+04	1.34E-04	5.77E-03	1.75E-04	5.65E-04
641731	Dichlorobenzana, 1,3-	1	0.130	0.659	1.82E-08	D 390	6.33E-09	1.72E+04	1.00E+02	2.52E+08	9.50E+08	1.30E-04	15	1.50E+03	4 11E-03	1.77E-01	1.756-04	2.58E-04
106487	1,4-Dichlorobenzane	L 1	0.130	0.659	1.62E-08	0.390	6.33E-09	1.72E+04	2.60E+02	2.52E+06	9.50E+08	1.30E-04	15	1,12E+04	8.69E-04	3.83E-02	1.75E-04	4 38F-04
96501	1,2-Dichlorobenzene	1 7	0.130	0.659	1.62E-08	0.390	6,33E-09	1.72E+04	5.10E+01	2.52E+06	9.50E+08	1.30E-04	15	1.21E+04	6.51E-07	2.37E-05	1.75E-04	3.94E-02
120821	1,2,4-Trichiorobenzene	1	0,130	0.659	1.62E-08	0.390	6,33E-09	1.726+04	1.13E+06	2.525+06	9.50E+05	1.30E-04	15	1,32E+04	4.35E-04	1.87E-02	1.75E-04	2.26E-04
100527	Flenzaldehyde	1	0.130	0.659	1.62E-08	0.390	6.33E-09	1.72E+04	1.74E+06	2.52E+06	9.50E+06		15	1.53E+03	2.29E-05	9.64E-04	1.75E-04	1.36E-03
91576	Melhylnaphihalene, 2-	1	0.130	0.659	1.62E-98	0,390	6.33E-09	1.72E+04	5.416+03	2.52E+06	9.50E+08	1,30E-04	15	1,61E+03		3,61E-02	1.75E-04	3.13E-04
92524	Bipheryl, 1,1'-	11	0.130	0.659	1.62E-08	0.390	6,33E-09	1.72E+04	8.81E+04	2.52E+08	9.50E+08	1.30E-04	15	1,47E+03	2.66E-04	1.14E-02	1,75E-04	3.15E-04
208988	Acenaphlhylene		0.130	0.659	1.826-08	0.390	6.33E-09	1.72E+04	4.00E+02	2.525+08	9.50E+08	1.30E-04	15	1.616+03	2.45E-04	1.05E-02	1.75E-04	3.36E-04
63329	Acenaphihene	1	0.130	0.659	1.62E-08	0.390	6.33E-09	1.72E+04	6.09E+04	2.52E+06	9.50E+08		. 15	1,81E+04	3.67E-05	1.58E-03	1.76E-04	7.33E-04
132649 96737	Dibenzofuran	1	0.130	0.659	1.82E-08	0.390	6,33E-09	1.72E+04	1.79E+03	2.52E+08	9.50E+05		15	1,47E+03	3.51E-03	1.615-01	1.75E-04	1.88E-04
85018	Fluorene		0.130	0.659	1.62E-08	0.390	6.33E-09	1.72E+04	2.97E+04	2.52E+08	9.50E+08	1.306-04	15	1.02E+04	2.20E-08	9.48E-07	1,75E-04	8,16E-01
120127	Phenanthrene Anthracene	 	0.130	0.659	1.626-08	0.390	6.33E-09	1.72E+04	3.64E+04	2,52E+06	9.50E+08	1.30E-04	15	1.48E+03	1.14E-04	4.90E-03	1.75E-04	3.50E-04
C5-C8	C5-C8 Aliphatics	 	0,130	0.659	1.62E-08	0.390	6,33E-09	1.726+04	2.57E+Q3	2,52E+06	9,50E+06	1.30E-04	15	1.84E+04	1.28E-05	5.43E-04	1,75E-04	1.60€-03
C9-C12	C9-C12 Aliphatics	1 -1 -1	0.130	0.659	1.52E-08	0.390	6.33E-09	1.72E+04	0.83E+04	2.52E+06	9.50E+08		15	. NA	0.48E-01	2.79E+01	1.75E-04	3.84E-04
C9-C10	C9-C10 Aromatics	1 1	0.130	0.659	1.62E-08	0.390	6.33E-09	1,72E+04	6.11E+04	2.52E+06	9.50E+06		15	NA NA	7.80E-01	3.38E+01	1.75E-04	3.64E-04
C9-C18	C9-C18 Aliphatics	+	0.130	0.659	1.62E-08	0,390	6.33E-09	1.72E+04	4.31E+05	2.52E+08	9.50E+08	1,30E-04	15	NA_	1,95E-03	1,70€-01	1,76E-04	3.69E-04
C11-C22	C11-C22 Aromatica	 	0.130	0.659	1.62E-08 1.62E-08	0,390 0,390	6.33E-09	1.72E+04	9.25E+05	2.52E+08	9.50E+08	1.30E-04	15	NA.	8.28E-01	3,55E+01	1.75E-04	3.64E-04
	10.1. of the United States	<u> </u>	1	L COOM	1.045-00	U, JYU	6.33E-09	1.72E+04	9.24E+05	2.525+06	9.50E+08	1.30E-04	15	NA NA	J.60E-04	1.65E-02	1.75E-04	4.27E-04

Appendix C.4
Johnson & Ellinger Model - Dista Entry Screen
Inhalation of Votetiles from Soil
Future Commercial Scenario - CT
Southwest Prperties, Walls G&H Superfund Sha, Operable
Whitney Barnel

		Diffusion	Convection	Soll-water	0-4		Average	Crack		Exponent of equivalent	infinite source	infinite		
Chemical		path	path	partition	Source Vapor	Crack	vapor flow rate	effective diffusion	Area of	foundation Pedel	indoor attenuation	source bidg.	Unit risk	Reference
CAS No.		length,	length.	coefficient.	conc	radius.	nio bidg.,	coefficient.	crack.	number.	coefficient.	conc.	factor.	CORG
(numbers only,		ŭ	Ļ	K.	C	T _{rench}	O _{ecal}	O _{merk}	Aona	eυφ(Pef)	α	Chang	URF	RIC
no dashea)	Chemical	(cm)	(cm)	(cm³/g)	(µg/m³)	(cm)	(cm ³ /a)	(cm²/x)	(cm²)	(unitleas)	(unilleas)	(μg/m³)	(mm/m³)*	(mg/m³)
95838										····				
540590	Trimethylbenzene, 1,2,4- Dichlorpethylene, 1,2- (total)	1	15 15	7.43E+00 2.57E-01	N/A N/A	0.10	2.74E+01 2.74E+01	4.77E-04	1.23E+03	2.75E+309	1.08E-05 1.08E-05	N/A	N/A	6.0€-03
106678	Trimethylbenzene, 1,3,5-	1	15	3.34E+00	N/A	0.10	2.74E+01	3,77E-04 3,95E-04	1.23E+03	#NUM #NUM		N/A N/A	#N/A	#N/A
104518	n-Butylbenzene		15	6.02E+00	N/A	0.10	2.74E+01	4,41E-04	1,23E+03 1,23E+03	#NUM	1.08E-05 1.08E-06	N/A	N/A MN/A	6.0E-03
91203	Naphthalene	-	15	4.00E+00	4.27E+03	0.10	2.74E+01	4.70E-04	1.23E+03	9.67E+307	1.08E-05	4.61E-02	N/A	3.0€-03
99876	/sopropyliciuene, 4-	1 "	15	3.16E+00	N/A	0.10	2.74E+01	4.39E-04	1.23E+03	NUM	1.08E-06	N/A	N/A	4.0E-01
135985	Butylbenzene, sec-	1	15	6.22E+01	N/A	0.10	2.74E+01	4.86E-04	1.23E+03	5,47E+297	1.08E-06	N/A	#N/A	#N/A
74873	Chloromethane	1	15	2.88E-02	3.24E+06	0.10	2.74E+01	7.88E-04	1.23E+03	1.14E+189	1.08E-05	3.51E+00	N/A	9.0E-02
75014	Vinyl chloride	1	15	3.72E-02	6.46E+05	0.10	2.74E+01	5.44E-04	1.23E+03	5.27E+224	1.08E-05	8.99E+00	8.8E-08	1.0E-01
74839	Bromomethane	1	15	2.86€-02	N/A	0.10	2.74E+01	4.48E-04	1.23E+03	#NUMI	1.08E-05	N/A	N/A	5.0E-03
75003	Ethyl Chiorida	1	15	2.88E-02	1.12E+05	0.10	2.74E+01	7.86E-04	1.23E+03	1.14E+160	1.08E-05	1,21E+00	N/A	1.0E+01
76364	1,1-Dichloroethylene	1	15	1.18E-01	1.08E+05	0.10	2.74E+01	5.47E-04	1.23E+03	3.82E+284	1.08E-05	1.17E+00	N/A	2.0E-01
78131 67641	Trichloro-1,2,2-triflouroethane, 1,1,2-	1	15	4.50E-01	N/A	0.10	2.74E+01	1.75E-04	1.23E+03	#NUMI	1.07E-05	N/A	N/A	3.0E+01
76160	Acetone Carbon Disulfide		15	1.156-03	1,37E+03	0.10	2.74E+01	2.07E-03	1.23E+03	9.18E+69	1.09E-05	1.48E-02	N/A	N/A
79209		· · · · · · · · · · · · · · · · · · ·	15	1.03E-01	N/A	0.10	2.74E+01	6.34E-04	1.23E+03	1.25E+228	1,08E-05	N/A_	N/A	7.0E-01
75092	Methyl Acelate Methylene chloride	1	15	6.64E-03 2.34E-02	N/A	0.10	2.74E+01	8.61E-04	1,23E+03	1.17E+166	1,08£-06	N/A	#N/A	#N/A
156805	Irana-1,2-Dichloroethytene	1	15	1.05E-01	1,60E+05 8.20E+04	0.10	2.74E+01 2.74E+01	6.35E-04	1.23E+03	8,55E+227	1.08E-05	1.73E+00	4.7E-07	3.0E+00
1834044	Methyl-Tertiary-Butyl Ether	1	15	7.68E-02	4.58E+03	0.10	2.74E+01	4.32E-04 6.67E-04	1,23E+03 1,23E+03	#NUMI 9.48E+216	1.08E-05 1.08E-05	8.85E-01 4.96E-02	N/A	2.06-01
76343	1,1-Dichloroethane		15	6.32E-02	1.62E+05	0,10	2.74E+01	4.58E-04	1.23E+03	#NUMI	1.08E-05	1.76E+00	N/A N/A	3.0E+00 5.0€-01
156592	cls-1,2-Dichloroethylene	1	15	7.10E-02	5,66E+04	0.10	2.74E+01	4.59E-04	1,23£+03	PNUMI	1.08E-05	8.12E-01	N/A	2.0E-01
78933	Butanone, 2- (MEK)	i	15	7.66E-03	N/A	0.10	2.74E+01	9.45E-04	1,23E+03	1.18E+153	1.08E-05	N/A	N/A	N/A
71566	1.1.1-Trichloroethane	1	15	2.20E-01	N/A	0.10	2.74E+01	4.75E-04	1.23E+03	4.36E+304	1.08E-05	N/A	N/A	2.2E+00
110627	Cyclohexane	1	15	3.20E-01	N/A	0.10	2.74E+01	4.85E-04	1,23E+03	3.18E+298	1.08E-05	N/A	#N/A	#N/A
71432	Benzene	1	15	1.10E-01	2.85E+04	0.10	2.74E+01	5.42E-04	1.23E+03	1.61E+267	1.08E-05	3.08E-01	7.5E-05	3.0E-02
79016	Trichlomethylene	1	15	3.32E-01	1.09E+05	0,10	2.74E+01	4.83E-04	1.23E+03	3.77E+299	1.08E-05	1.18E+00	1.1E-04	4.0€-02
108872	Methyl cyclohexane	1	15	5.38E-01	3.35E+06	0.10	2.74E+01	5.08E-04	1.23E+08	1.50E+242	1.08E-05	3.62E+01	N/A	3.0€+00
108883	Toluene		15	3.64E-01	1.285+05	0.10	2.74E+01	5.34E-04	1,23E+03	1.10E+271	1.08E-05	1.39E+00	N/A	4.0E-01
127184	Tetrachloroethylene	1	15	3.10E-01	9.19E+04	0.10	2.74E+01	4.39E-04	1.23E+03	#NUM!	1.08E-05	8.92E+01	5.9E-06	N/A
108907	Chlorobenzene	1	15	4.38E-01	3.21E+04	0.10	2.74E+01	4.55E-04	1.23E+03	WNUM	1.08£-05	3.46E-01	N/A.	6.0E-02
100414	Ethylbenzene	1	15	7.26E-01	2.68E+04	0.10	2.74E+01	4,60E-04	1.23E+03	PNLIMI	1.085-05	2.90E-01	N/A	1.0E+00
1330207	Xylenes	1	15	4.82E-01	N/A	0.10	2.74E+01	3,75E-03	1.23E+03	4.03E+38	1.09E-05	N/A	N/A	1.0E-01
98828	Styrene		15	1,55E+00	N/A	0.10	2.74E+01	4.47E-04	1.23E+03	#NUMI	1.08E-05	N/A	#N/A	ANVA
76345	lacpropylbenzene 1,1,2,2-Tetrachiproethane		16	1.86E+01	N/A	0,10	Z.74E+01	3.85E-04	1.23E+09	#NUM	1.08E-05	N/A	N/A	4.0E-01
541731	Dichiorobenzene, 1,3-		15	1.87E-01 3.40E-01	N/A 3.19E+04	0.10	2.74E+01 2.74E+01	5.65E-04	1.23E+03	1,96E+256	1.08E-05	N/A	#N/A	#N/A
106467	1,4-Dichlorobenzene		15	1.235+00	5.50E+03	0.10	2.74E+01	2,58E-04	1.23E+03	PNUMI	1.07E-06	3.42E-01	N/A	N/A
96601	1,2-Dichlorobenzene		15	1.076-01	3.94E+00	0.10	2.74E+01	4.38E-04 3.94E-02	1.23E+03 1.23E+03	#NUM! 4.74E+09	1.08E-05 1.09E-05	7.196-02 4.286-05	N/A N/A	8.0E-01 N/A
120821	1,2,4-Trichlorobenzene		15	3.58E+00	N/A	0.10	2.74E+01	2.25E-04	1.23E+03	#NUM!	1.07E-05	N/A	N/A	2.0E-01
100527	Benzaldehyde	- 1	16	8.54E-02	N/A	0.10	2.74E+01	1,36E-03	1.23E+03	2.60E+107	1.08E-05	N/A	#N/A	*N/A
91576	Methylnaphthaiene, 2-	1	16	1.70E+01	1,20E+04	0.10	2.74E+01	3.13E-04	1.23E+03	WNUM	1.08E-05	1,29E-01	N/A	3.0€-03
92524	Biphenyl, 5,1'-	1	15	1.25E+01	N/A	0.10	2.74E+01	3.15E-04	1,23E±03	WNUM!	1.08E-05	N/A	N/A	N/A
208958	Acenephthylene	1	15	9.57E+00	4.31E+02	0.10	2.746+01	3,38E-04	1,23E+03	#NUN#	1.08E-05	4.64E-03	N/A	3.0€-09
83329	Acenaphthene	1	15	1.42E+01	N/A	0.10	2.74E+01	7.33E-04	1.23E+03	2.13E+197	1.08E-05	N/A	N/A	3.0E-03
132649	Dibenzofuran	1	15	1.63E+01	1.64E+04	0.10	2.74E+01	1.68E-04	1,23E+03	#NUM	1.07E-05	1.75E-01	N/A	_N/A
86737	Fluorene	11	16	1.54E+01	N/A	0.10	2.74E+01	8.18E-01	1,23E+03	1.50E+00	3.24E-05	N/A	N/A	3.0€-03
85018	Phenanthrane	11	16	2.63E+01	6.27E+03	0.10	2.74E+01	3,50E-04	1.23E+03	MUNA	1.08E-05	6.76E-02	N/A	3.0E-03
120127	Anthrecens	1	15	5.90E+01	N/A	0.10	2.74E+01	1.60E-03	1,23E+03	5.14E+90	1.08E-05	N/A	N/A	3.0E-03
C5-C8	C5-C8 Aliphatics	· · · · · ·	15	4.53E+00	3.84E+08	0.10	2.74E+01	3.64E-04	1.235+03	#NUM#	1.08E-05	4.14E+03	N/A	2.0E-01
C9-C12	C9-C12 Aliphatics	1	15	3 00E+02	6.76E+06	0.10	2.74E+01	3.84E-04	1.23E+03	PNUM	1.08E-05	7.29E+01	N/A	2.0E-01
C9-C10	C9-C10 Aromatics		15	3.58E+00	1.95E+07	0.10	2.74E+01	3.69E-04	1.235+03	#NUMI	1.086-05	2.10E+02	N/A	5.0E-02
C9-C18	C9-C15 Aliphatica		15	1.38E+03	2.42E+07	0.10	_2,74E+01	3.64E-04	1.23E+03	#NUM!	1.08E-05	2.616+02	N/A	2.0E-01
C11-C22	C11-C22 Aromatica	. 1	. 16	1,00€+01	1.40E+06	0.10	2.74E+01	4.27E-04	1.23E+03	#NUM	1.08E-05	1.51E+01	N/A	5.0E-02

RESULTS SHEET

Appendix C-4
Johnson & Edinger Model - Dete Entry Screen
Inhibition of Valables from Soli
Fubris Commercial Scenario - CT
Southwest Preprint, Walte G&H Superfyed Site, Operable Unit 2
Winters Remail

RISK-BASED SOIL CONCENTRATION CALCULATIONS:

INCREMENTAL RISK CALCULATIONS:

Chemical CAS No. (numbers only, no deshes)	Chamical	Indoor exposure soil conc., carcinogen (µg/kg)	Indoor espacine eoil conc., poscercinogen (µg/kg)	Flick-besed Indoor exposure soil cond, (µg/kg)	Scd eaturation conc., C _{ssc} (µg/kg)	Final indoor exposurs soil conc., (µp/kg)	Incremental risk from Vecor Insulation to Indoor six. cardinogen (unities y)	Hazard quotient from yearor intrusion to indoor air. soncarcinogen (unifiess)
95636	Trimethylpenzene, 1.2,4-	NA	NA I	NA.	4,34E+05	NA I	NA	NA.
540590	Dichioroethylene, 1,2- (total)	NA	NA NA	HA	5.98E+02	NA	HA	NA
108878	Trimetrythenzene, 1,3,5-	NA NA	, NA	NA NA	7.13E+04	NA	NA	NA
104518	n-Butebenzene	NA	¥	NA	6.63E+03	NA	NA.	NA.
91203	Nachthalene	NA NA	NA.	NA.	1,30E+05	NA.	NA.	3,1E-03
99676	Isopropylickiene, 4-	NA.	NA.	NA	7.21E+05	NA	NA NA	NA NA
135988	Butylbenzene, sec-	NA.	NA.	NA.	1.10E+06	NA .		7.8E-Q3
74873	Chloromethane	NA	NA NA	NA.	1,37E+06	NA NA	NA 1.6E-06	1,46-02
75014 74839	Vinyl chloride Bromomethane	NA NA	NA NA	NA NA	8.33E+05	NA.	1.0E-00	NA NA
75003	Ethyl Chloride	NA.	NA.	NA.	3.09E+05	NA.	NA.	2.4E-05
75354	1.1-Dichlorpethylene	NA	NA NA		8 39E+05	NA NA	NA.	1.2E-03
76131	Trichioro-1,2,2-triflourosthane, 1,1,2-	NA NA	NA NA	- NA	3.99E+05	HA.	NA NA	NA NA
57541	Acetone	NA.	NA NA	- NA	2.01E+08	- NA	NA NA	NA.
75150	Carbon Disuffide	NA NA	NA NA	NA NA	8.78E+05	- NA	- NA	NA.
79209	Methyl Acetate	NA	NA NA	NA NA	5.03E+07	HA	NA.	NA.
75092	Methylene chicride	NA.	NA NA	NA NA	2.96E+06	NA.	2.1E-08	1.2E-04
156605	trens-1.2-Dichloroethylene	NA NA	NA NA	NA.	2.12E+08	NA ···	NA NA	6 8F-04
1634044	Methyl-Tertleny-Butyl Ether	NA	NA NA	NA.	1 42E+07	NA.	NA.	3.3E-06
75343	1.1-Dichlorpethane	NA	NA.	NA NA	1.39E+08	NA.	NA.	7.0E-04
158592	cis-1.2-Dichloroethylene	NA NA	NA.	NA NA	9.75E+05	NA	NA NA	6.1E-04
78933	Butenone, 2- (MEK)	NA.	NA	NA.	4.63E+07	NA.	NA.	HA
71556	1.1.1-Trichloroethene	NA.	NA.	NA.	6.01E+05	NA NA	NA NA	HA
110827	Cyclohesane	NA.	NA.	NA	3.66E+05	NA.	NA NA	HA
71432	Benzene	NA.	NA.	NA	5.74E+05	NA	6.25-08	2.16-03
79016	Trichiorpethylene	NA	NA	NA	8.05E+05	NA	3.3E-06	5.9E-03
106872	Mattryl cyclohecene	NA.	NA.	NA.	2,968-04	. NA	NA	2.4E-03
108883	Toluene	NA	HA	NA	3.026+05	NA	NA	6 DE-04
127164	Telt schiorostrylene	NA	NA	NA	1,062,+05	N	1,58-07	NA.
108907	Chlorobenzene	NA	NA	NA.	3.045+05	NA.	NA	1.2E-03
100414	Elit/Ibercome	NA	NA	NA.	1.582+05	NA.	- NA	5.66-05
1330207	Xylanes	NA.	HA	NA .	1.50E+05	··· NA	NA.	NA NA
100425	Shrana	NA.	NA .	NA	_5.44E+05	NA	NA.	HA.
98828	leopropylbenzene	HA	NA.	HA	1.06E+06	NA NA	NA.	NA
79345	1.1,2.2-Teirachkroethave	NA	NA .	NA.	1.15E+06	NA.	NA	NA.
541731	Dichlorobenzene, 1.3-	HA	HA	NA.	3.82E+04	N/A	"NA	NA NA
105467	1.4-Okthorobenzene	HA	NA.	NA .	1.06E+05	NA	NA.	1.82-05
95501	1.2-Dichlorobenzerre	NA.	NA.	NA.	6.50E+08	NA.	NA.	NA NA
120621	1.2,4-Trichlorobenzene	NA.	HA.	NA.	1,13E+06	NA	NA NA	
100527 91576	Benzaklehide	HA.	NA NA	NA.	1,745+06	NA.	NA.	B.SE-C3
	Methylnaphthalene, 2-				4.24E+05	NA	NA NA	NA NA
92524 208968	Sichenyl, 1,1'- Acenaphthylene	HA.	NA NA	NA.	8.815+04	NA NA	HA.	3.1E-04
83329	Acenachthone	NA.	NA NA	NA NA	3,84E+04 6,09E+04	NA.	HA	NA NA
132649	Adenastrene Disenzoturan	HA.	NA NA	HA HA	1.05E+05	NA.	- ₩	NA NA
86737	Fluoren	NA.	NA NA	NA NA	2.97E+04	NA NA	NA NA	NA.
85018	Phonon hyene	NA NA	NA NA		3.64E+04	NA.	- 122 -	4.5E-03
520127	Aribrarana	NA.	NA NA	NA NA	2.57E+03	NA.	NA NA	NA NA
G5-C8	CS-C8 Allehatica	NA NA	NA NA	NA.	7.86E+07	- NA	NA.	4.1E+00
C9-C12	C9-C12 Aliebatica	17.	NA		2 12E-07	NA	NA.	7,35-02
CB-C10	G9-C10 Aromatics	HA.	NA NA	NA NA	1.925+00	NA.	NA.	8.4E-01
C9-C18	C9-C16 Alghatics	NA T	 		1 38E+07	HA	· · · · · · · · · · · · · · · · · · ·	2,65-01
Annah 14	C11-GZZ Arometics	NA.	NA.	NA NA	5.92E+07	NA.	NA.	6.1E-02

95% UCL Canoer 95% UCL Risk HI YOTAL: 56-06 5.4E+00

> = Canoar risk > 1E-05 or HQ/HI>1E+00

Trimethylberuzwe, 1,2-4
Dichlorostriviews, 1,2-1 (bidd)
Trimethylberuzwe, 1,2-1 (bidd)
Trimethylberuzwe, 1,2-1 (bidd)
Trimethylberuzwe, 1,2-5
McSSAQE: Soil conc, >= saturation (Ceat), Rais/MC addutated at Ceat, McSSAQE: Soil conc, >= saturation (Ceat), Rais/MC addutated of Ceat, McSSAQE: Soil conc, >= saturation (Ceat), Rais/MC addutated of Ceat, McSSAQE: Soil conc, >= saturation (Ceat), Rais/MC addutated of Ceat, McSSAQE: Soil conc, >= saturation (Ceat), Rais/MC addutated of Ceat, McSSAQE: Soil conc, >= saturation (Ceat), Rais/MC addutated of Ceat, McSSAQE: Soil conc, >= saturation (Ceat), Rais/MC calculated of Ceat, McSSAQE: Soil conc, >= saturation (Ceat), Rais/MC calculated of Ceat, McSSAQE: Soil conc, >= saturation (Ceat), Rais/MC calculated of Ceat, McSSAQE: Soil conc, >= saturation (Ceat), Rais/MC calculated of Ceat, McSSAQE: Soil conc, >= saturation (Ceat), Rais/MC calculated of Ceat, McSSAQE: Soil conc, >= saturation (Ceat), Rais/MC calculated of Ceat, McSSAQE: Soil conc, >= saturation (Ceat), Rais/MC calculated of Ceat, McSSAQE: Soil conc, >= saturation (Ceat), Rais/MC calculated of Ceat, McSSAQE: Soil conc, >= saturation (Ceat), Rais/MC calculated of Ceat, McSSAQE: Soil conc, >= saturation (Ceat), Rais/MC calculated of Ceat, McSSAQE: Soil conc, >= saturation (Ceat), Rais/MC calculated of Ceat, McSSAQE: Soil conc, >= saturation (Ceat), Rais/MC calculated of Ceat, McSSAQE: Soil conc, >= saturation (Ceat), Rais/MC calculated of Ceat, McSSAQE: Soil conc, >= saturation (Ceat), Rais/MC calculated of Ceat, McSSAQE: Soil conc, >= saturation (Ceat), Rais/MC calculated of Ceat, McSSAQE: Soil conc, >= saturation (Ceat), Rais/MC calculated of Ceat, McSSAQE: Soil conc, >= saturation (Ceat), Rais/MC calculated of Ceat, McSSAQE: Soil conc, >= saturation (Ceat), Rais/MC calculated of Ceat, McSSAQE: Soil conc, >= saturation (Ceat), Rais/MC calculated of Ceat, McSSAQE: Soil conc, >= saturation (Ceat), Rais/MC calculated of Ceat, McSSAQE: Soil conc, >= saturation (Ceat), Rais/MC calculated of Ceat, McSSAQE: Soil conc,

Jehrand C 4
Johnson & Elthour Model - Deta Entry Screen
Inhulation of Wolafee from 5of
Future Charle Recryational Science - Place
Southwater Princeton, Wells G&H Supportund See, Operable Unit 2
Windows Samel

CALCULATE RISK BASED SOIL CONCENTRATION (www "7" in "YES" box)

SL-SCREEN Version 2.3; 03/01

YES ____

ALCULATE SICREMENTAL RISKS FROM ACTUAL SOIL CONCENTRATION forter "A" in "YES" but and infinal east come, before

YES X

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									•										
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ENTER		ENTER	Decth below drade			Vadore zone	User-defined	ENTER	ENTER	ENTER	ENTER	ENTER	ENTER	ENTER	ENTER	ENTER	ENTER	ENTER	ENTER
EMIER		Man	to bottom	Ceoth below	Average	8G8	vedone 20ne	Vagose zone	Vadane zane	Vadose zone	Увекции доли	Averaging	Average					Terost	Terrial hazard
Chattical		ec#	of project	grade to loo	açã	and type	adi vacor	क्यों केर	무게 (너희	dig minist and	acti ordanic	trine for	Hine for	Exposure .	Exposure Inscuence	Exposure	Coversion	rink for opportunity	cuatient for experiencement.
CAS No.		work.,	apace Book	of consumination.	terropreture.	fused to settmete	он петерущу.	bulk denetik	COLOGEN'	paranity.	carbon medion.	androwe.	ATNE	ED:	EF .	ET	C.P	THE	THO
(numbers crey,		CR	L.	Ŀ	7.	eag vector	к,	6.			4	ATC.	-			-	-		
00 (dealther)	Chemical	(s-g-leg)	(15 to 200 cm)	(0m)	<u>(%)</u>	Dermeebility)	Philips (com ²)	(g/tsm²)	(profilesy)	(cm³/cm³)	(unitinds)	<u></u>	(Arts)	(v19)	(de ='\r')	(ALP/DEN)	(hre/yr)	(VOIGES)	(unktens)
												70		-	70	2.5	8760	1.05-00	T
19434	Trimethylbenzene, 1,2,4-		1.5	15	10	L5	1	1.5	0.43	0.3	0.002	70	· · · · · ·		78	2.5	6760 A760	1.0E-06	 ; -
540500	Dichlorosthylene, 1,2- (total)		15	16	30	LS		1.5	0.43	0.3	0.002	70	- :	B	78	2.5	8760	1.0E-08	
190673	Trimethylbenzene, 1,3,5-		tô	15	10	L8	1		0.43	0.3	0.002		- 6	8	76	2.5	6760	1.0E-06	
104818	n-Butylhengane	1 1	15	15	10	Ls	1	1.5	0.43	0.3	0.002	70		- ; -	78	2.5	5780	1.0E-09	+
\$1300.	Naphihalene	2.74E+03	15	15	10	L8	1	1.5	0.43	0.3	0.002	70			78	2.5	8780	1.0E-06	 ;
10175	leopropytokene, 4-		15	16	10	1.5	1	1.5	0 43	0.3	0.002		<u></u>	- 6	76	2.5	8760	1.06-08	+
130000	Butylbenzene, eec-		16	15	10	L8	1	1.0	0.43	0.5	0.002	70			76	2.5	8780	1.06-00	+ + -
74673	Chlorometiume	2.49E+02	15	15	10	L5	1	1.5	043	0.3	0.002	70		- 6	78	2.3	8760	1.05-08	
79014	Vlnyl chlorida	2.61E+02	16	15	10	LB	1	1.8	0.43	0.5	0.002							1 0E-08	
74428	Bromomethane		16	15	10	LB	1	15	0.43	0.3	0.002	70	6	•	78	2.5	8760	1 05-08	
7000	Ethyl Chloride	6.00E+01	15	15	10	LB	1	1.6	0.43	0.5	0.002	70		*	78	2.5	B760	1.0E-08	
78384	1,1-Olchioroethylene	1.20E+02	15	15	10	LS	1	1.5	0.43	03	0.902	70		*	78	2.5	8760 6760	1.06-06	
76131	Trichloro 1.2.2-trificumentana 1.12-		15	15	10	18		1.5	0.43 0.43	03	0 002	<u>70</u>		- 6	76	2.5	8760	1.06-06	
67941	Acetone	3.24€+02	15	10	10	LB	1					70	- 6		78	26	8760	1.0E-06	+ + 1
79186	Carbon Disuffide		15	15	10	Le .		1.6	0.43	0,3	0 002	70		-	78	2.5	8760	1.0E-06	
79300	Methyl Acetals		19	15	10	LS.	1	1.6	0.43	0.3	0 002	70		•	78	25	6760	1.0E-06	-
79000	Methylene chloride	7.27E+02	18	15	10	Lib.	1		0.43	0.3		70		-	78	26	6780	1.0E-06	+ + +
******	trans-1,2-Dichlorosthylene	7.73E+01	18	18	10	1.6	1	1.6	0.43	0.3	0.002	70	•		78	25	8760	1.0E-08	
1634044	Methyl-Tertary-Butyl Ether	6.75E+01	18	15	10	LB	1		0.43	0.3	0.002	70	·····		78	2.5	8750	1.0E-06	
76341	1,5-Dichloroethane	3.56E+02	16	18	10	Lis Lis	1	1.5	0.43	0.3	0.002	70	,	8	————	2.5	8/60	1.0E-96	+ +
19462	cia-1,2-Dichloroethylene	1.80E-02	16	16	10	LB	1	1.6	0.41	0.3	0.022	10			78	2.5	8780	1.0E-06	-
78613	Butanone, 2- (MEK)	1	16	16	10	LS.		1.5	0.43	0.3	0,002	- 70			78	2.5	6750	1.0E-08	+
71366	1,1,1-7/schloroetherre	1	16	15	10	La	1	1.5	0.43	0.3	0.002	70		Ť	76	2.5	8780	1.06-08	1
110427	Cycloheome		15	10	10	1.3	1	1.5	0.43	03	0.002	70	ь		78	23	8780 8780	1.QE-06	1 1
71432	Bergene	2.10E+02	16	1-12-	10		1	1.5	0.43 0.45	0.3	0.002	no	-	6	78	2.5	8780	1,05-08	1
race#	Trichloroethylene	2 81E+72	15	1	10		1	1,5		0.3	0.002	70		- 6	78	25	8760	1.0E-08	
HMATE	Methyl cyclohecene	4.4天+62	16	15	10	LS	1	1.3	0.43		9.002	70			76	2.0	8760	1.06-01	1 1
100117	Tokune	8 155+02	16	18	10	1.5		1.5	0.43	0.3	0.002	70	5	- -	78	2.8	8780	1 0E-08	+ + +
TET 144	Tetrachioraethylene	1.476+00	15	15	10	1 18		1.5	0.43	9.3	0.002	70	1 2	-	78	2.5	8760	1.06-06	
MANUT	Chlorobenzene	3.11E+02	15	15	10	(8	1	1.5	0.43	03	0.902	70	i i	- 6	76	7.6	8760	1,05-08	
MAN	Eftyibenzene	1.846+02	16	13	10	Lis	1-1-1	1.5	0.43	33	9 902	70	8	6	76	2.5	8760	108-06	,
120007	Xylenes	 		15		Ls	1	1.5	0.43	0.3	0.002	70		-	78	2.5	6760	1.0E-06	
100-CB	Styrene		15	19	10	1.8	1	3.5	0.43	93	0.002	70	 		78	2.6	8780	1.0E-08	
*****	leopropy(benzene		12	 	10	- 18		1.5	0.43	0.3	0.002	70			78	2.6	87 8 0	1 00-44	,
79046	1,1,2,2-Tetrachiorosthane	1,006+02	15	1 18 -	+0	LS	1	15	0.43	0.3	0.002	70	1 -	•	70	2.3	8780	1,0€-06	-
MIN	Dichlorobenzene, 1,3-	2,50E+02	15	18	10	(8	1	1.5	0.43	0.3	0.002	70	6		78	2.5	6760	1.0E-06	+ + -
***************************************	1,4-Olchioroberome	6.16E+01	19	 	10	(E	1	1.5	0.43	0.3	0.002	70			7E	26	8760	1.0E-08	
-	1,2-Olchiorobenzene	0.102-31	15	 	10	- 6	 	1.5	0.43	0.3	9.002	70	•	- 6	76	2.5	8790	1.0E-06	1
120021	1,2.4-Trichlorchanzene	 	19	16	10	LS	1	1.5	0.43	0.3	0.002	70	6	8	78	2.5	6780	1.0E-06	1
4400,77	Bergaldehyde	5,41E+03	18	15	10		1	12	0.43	0.3	0.002	76	8	8	76	2.5	8780	105-24	1 1
E1974	Metrylnephthalene, 2-	0,016-02	15	15	10	Lis .	 	1,5	0.43	0.3	0.002	70	- 6		78	2.5	8750	1 0E-08	1
E20 H	Biphany, 1,11-	4,00E-02	18	15	10	is .	1	1.5	0.43	0.3	0,002	70	6		78	2.5	8760	1 0E-08	1
300011	Acensphiliylene	***************************************	15	15	10	18	1	1.5	0.45	0.3	0.002	70	-		76	2.6	8762	1.06-08	1
470	Acenaphthene	1,79E+03	16	15	10	LS	 	1.5	0.43	0.3	0.002	70	•		78	2.5	8760	1.0E-08	1
1230-10	Diberas/uran	1,145,103	15	1 16 -	10	1	1	1.5	0.43	0.5	0.002	70			78	2.6	■760	1.06-06	1 1
2017	Fluorena	3.66E+04	15	13	16	Lis .	 	1.5	0.43	0.3	0.002	70	6		78	2.5	8780	1,0£-08	1
99713	Phenantivene	3.002734	15	15	18	18		1.5	0.45	03	0.002	70	-	- 6	78	2.6	8760	1.0E-08	١,
120127	Anthracene	9.83E+04	16	15	10	LS		1,5	0.43	0.3	0.002	70		- 6	78	2.5	8760	1.0E-06	1
ca-ca	C5-C8 Aliphatics	4.11E+04	16	16	10	18	+;	1.5	0.43	03	9 902	70	- 6	9	78	2.6	6700	1.0E-06	1
CHCHE	CS-C12 Aliphatica	4.316+08	15	13	10	LS	1	- 18	0.43	0.3	0.002	70	6	8	78	2,6	8760	1.0E-06	,
GION	C9-C10 Aromatice	8.04E+08	16	15	16	1 13	1	13	0.63	0.3	0.002	70			7.8	2.5	8750	1.0E-06	
CSCII	C9-C18 Allphatter C11-C22 Aromatics	4.106+01	13	13	10	l is	11	1.8	0,43	0.3	0.002	70	6	- 8	78	2.5	8760	1.0E-06	1
019-022	C114C22 Albinact	1		<u> </u>		·													

house:

1) Default and parameters from latter T of Limit's Guide for Evaluating Subsection Visco (visco) who Guideling (U.S. EPA June 18, 2005) warp used for each union filled powerly (S.), and organic centres freedom (L.). and (pit) parameter (r), and soil day to be consistent of the consistency (S.).

Appendix C.4
Johnson & Ettinger Model - Data Entry Screen
Inhalation of Volatiles from Soil
Future Child Recreational Scenario - RME
Southwest Prperties, Wells G&H Superfund Site, Operable Unit 2
Whitney Barrel

Chemical CAS No. (numbers only, no dashes)	Chemical	Diffusivity in air, D _* (cm ² /s)	Diffusivity in water, D _w (cm ² /s)	Henry's law constant at reference temperature, H (atm-m³/mol)	Henry's law constant reference temperature, T _R (°C)	Enthalpy of vaporization at the normal boiling point, ΔH_{cb} {cal/mol}	Normal boiling point, T _B (°K)	Critical temperature, To (°K)	Organic carbon partition coefficient, K _{sc} (cm ³ /g)	Pure component water solubility, S (mg/L)	Unit risk factor, URF (µg/m³)-1	Reference conc., RfC (mg/m³)	Physical state at soil temperature, (S.L.G)
95636	Trimethylbenzene, 1,2,4-	7.80E-02	9.03E-06	5.70E-03	25	1.25E+03	442.30	649.11	3.72E+03	5.70E+01	N/A	6.0E-03	
540590	Dichloroethylene, 1,2- (total)	5.59E-02	6.47E-06	4.30E-04	20	1.32E+03	585.00	877.50	1,28E+02	1.30E+00	#N/A	#N/A	0.0E+00
108678	Trimethylbenzene, 1,3,5-	6.48E-02	7.86E-06	7.81E-03	25	1,25E+03	442.30	649.11	1.67E+03	2.00E+01	N/A	6.0E-03	U.VE+00
104518	n-Butylbenzene	7.25E-02	8.39E-06	1.25E-02	25	1.23E+03	456.00	684.00	2.51E+03	1.26E+00	#N/A	#N/A	
91203	Naphthalene	5.90E-02	7.50E-06	4.83E-04	25	1.04E+04	491.14	748.40	2.00E+03	3.10E+01	N/A	3.0E-03	s
99876	Isopropyttoluene, 4-	7.25E-02	8.39E-06	8,60E+00	25	1.24E+03	450,10	652,04	1.58E+03	2.34E+01	N/A	4.0E-01	- · ·
135988	Butylbenzene, sec-	8.00E-02	8.00E-06	1.67E-02	25	1.24E+03	446.65	669,98	3.11E+04	1.76E+01	#N/A	#N/A	0.0E+00
74873	Chloromethane	1.26E-01	6.50E-06	8.67E-03	25	1.35E+03	249.00	373.50	1.43E+01	5,32E+03	N/A	9.0E-02	0.0E+00
75014	Vinyf chloride	1.06E-01	1.23E-05	2.71E-02	25	5.25E+03	259.25	432.00	1.86E+01	2.76E+03	B.BE-06	1.0E-01	0.02700
74839	Bromomethane	7.28E-02	1.21E-05	6.22E-03	25	5.49E+03	276,50	414.75	1.43E+01	1.52E+04	N/A	5.0E-03	0.0E+00
75003	Ethyl Chloride	1.26E-01	6.50E-06	8.67E-03	25	1,36E+03	249.00	373.50	1.43E+01	5.32E+03	N/A	1.0E+01	L
75354	1,1-Dichloroethylene	9.00E-02	1,04E-05	2.61E-02	25	6.25E+03	304.75	576,05	5.89E+01	2.25E+03	N/A	2.0E-01	
76131	Trichloro-1,2,2-triflouroethane,	2.88E-02	8.07E-06	5.17E-01	25	1.33E+03	320.70	481.05	2.25E+02		N/A	3.0E+01	· 0.0E+00
97944	1,1,2-									1.70E+02	,	0.02.01	0.02.00
67641	Acetone	1.24E-01	1.14E-05	3.88E-05	25	6.96E+03	329.20	508.10	5.75E-01	1.00E+06	N/A	N/A	,
75150	Carbon Disulfide	1.04E-01	1.29E-05	1.27E-02	25	5.39E+03	319,00	552.00	5.14E+01	2.67E+03	N/A	7.0E-01	
79209	Methyl Acetate	1.04E-01	1.00E-05	1.13E-04	25	1.31E+03	365.00	547.50	3.32E+00	2.43E+05	#N/A	#N/A	0.0E+00
75092	Methylene chloride	1.01E-01	1.17E-05	2.19E-03	25	6.71E+03	313,00	510.00	1.17E+01	1.30E+04	4.7E-07	3.0E+00	U.UL.700
156605	trans-1,2-Dichloroethylene	7.07E-02	1.19E-05	9.39E-03	25	1.33E+03	320.85	516.50	5.25E+01	6.30E+03	N/A	2.0E-01	I.
1634044	Methyl-Tentiary-Butyl Ether	1.02E-01	1,05E-05	5.87E-04	25	1.32E+03	328.36	497.11	3.84E+01	5.10E+04	N/A	3.0E+00	<u> </u>
75343	1,1-Dichloroethane	7.42E-02	1.05E-05	5.61E-03	25	6.90E+03	330.55	523.00	3.16E+01	5.06E+03	N/A	5.0E-01	
156592	cis-1,2-Dichlorgethylene	7.36E-02	1.13E-05	4.07E-03	25	7.19E+03	333.65	544.00	3.55E+01	3.50E+03	N/A	2.0E-01	
78933	Butanone, 2- (MEK)	8.08E-02	9.80E-06	5.60E-05	25	1,31E+03	352.50	528.75	3.83E+00	2.23E+05	N/A	N/A	0.0E+00
71556	1,1,1-Trichloroethane	7.80E-02	8.80E-06	1.72E-02	25	7.14E+03	347.24	545.00	1.10E+02	1.33E+03	N/A	2.2E+00	0.02.00
110827 71432	Cyclohexane	8.00E-02	9.00E-06	2.00E+00	25	1.31E+03	353.85	530.78	1.60E+02	5.50E+01	#N/A	#N/A	0.0E+00
	Benzene	8.80E-02	9.80E-06	5,56E-03	25	7.34E+03	353.24	562.16	5.89E+01	1.75E+03	7.8E-06	3.0E-02	0.02.00
79016	Trichloroethylene	7.90E-02	9.10E-06	1.03E-02	25	7.51E+03	360.36	544.20	1.66E+02	1.10E+03	1.1E-04	4.0E-02	7
108872	Methyl cyclohexane	9.86E-02	8.52E-06	4.23E-01	25	1.30E+03	373.90	560.85	2.68E+02	1.40E+01	N/A	3.0E+00	
108883	Toluene	8.70E-02	8.60E-06	6.63E-03	25	7.93E+03	383.7B	591.79	1.82E+02	5.26E+02	N/A	4.0E-01	
127184	Tetrachloroethylene	7.20E-02	0.20E-06	1.84E+02	25	8.29E+03	394.40	620.20	1.55E+02	2.00E+02	5.9E-06	N/A	
108907	Chlorobenzene	7.30E-02	B.70E-06	3.71E-03	25	8.41E+03	404.87	632.40	2,19E+02	4.72E+02	N/A	6.0E-02	<u>-</u>
100414	Ethylbenzene	7.50E-02	7.80E-06	7.88E-03	25	8.50E+03	409.34	617.20	3.63E+02	1.69E+02	N/A	1.0E+00	
1330207	Xylenes	7.69E-02	8.44E-06	6.73E-06	25	1.26E+03	417,40	616.21	2.41E+02	2.20E+02	N/A	1.0E-01	
100425	Styrene	7.10E-02	8.00E-06	2.76E-03	25	8.74E+03	418.31	636.00	7.76E+02	3.10E+02	#N/A	#N/A	
98828	Isopropylbenzene	6.50E-02	7.83E-06	1.47E-02	25	1.26E+03	425,40	631.01	9.31E+03	5.60E+01	N/A	4.0E-01	
79345	1,1,2,2-Tetrachloroethane	7.10E-02	7.90E-06	3.44E-04	25	9.00E+03	419.60	661.15	9.33E+01	2.97E+03	#N/A	#N/A	<u>-</u> -
541731	Dichlorobenzene, 1,3-	4.14E-02	8.85E-06	4.70E-03	25	1.24E+03	446.00	683.96	1.70E+02	6.68E+01	N/A	N/A	
106467 95501	1,4-Dichlorobenzene	6.90E-02	7.90E-06	2.43E-03	25	9,27E+03	447.21	684.75	6.17E+02	7.38E+01	N/A	8.0E-01	S
120821	1,2-Dichlorobenzene	6.88E-02	9.41E-06	1.62E-06	25	9.70E+03	465.00	697.50	5.34E+01	2.77E+04	N/A	N/A	s
100527	1,2,4-Trichlorobenzene	3.00E-02	8.23E-06	1.42E-03	25	1.05E+04	486,15	725.00	1.78E+03	3.00E+02	N/A	2.0E-01	 [
91576	Benzaldehyde	7.30E-02	9.07E-06	2.62E-05	25	1.24E+03	452.00	678,00	3.27E+01	6.57E+03	#N/A	#N/A	0.0E+00
92524	Methylnaphthalene, 2- Biphenyl, 1,1'-	4.84E-02	7.75E-06	1.01E-03	25	1.17E+03	514.05	761.01	8.51E+03	2.46E+01	N/A	3.0E-03	S
208968	Acenaphthylene	4.04E-02	8.15E-06	3.03E-04	25	1.15E+03	529.10	793.65	6.25E+03	6.94E+00	N/A	N/A	0.0E+00
83329		4.43E-02	7.44E-06	2.80E-04	25	1.12E+03	553.00	792.01	4.79E+03	3.93E+00	N/A	3.0E-03	S
132649	Acenaphthene Dibenzofuran	4.21E-02	7.69E-06	1.55E-04	25	1.22E+04	550.54	803.15	7.08E+03	4.24E+00	N/A	3.0E-03	S
86737	Fluorene	2.67E-02	5.93E-06	4.00E-03	25	1.11E+03	559.00	824.01	8.13E+03	1.00E+01	N/A	N/A	s
85018	Phenanthrene	3.63E-02	7.88E-06	9.41E-08	25	1.27E+04	570.44	870.00	7.71E+03	1.90E+00	N/A	3.0E-03	Š
120127	Anthracene	3.30E-02	7.47E-06	1.30E-04	25	1.06E+03	613.00	869,01	1.41E+04	1.28E+00	N/A	3.0E-03	S
C5-C8	C5-C8 Aliphatics	3.24E-02	7.74E-06	6.51E-05	25	1.31E+04	615.18	873.00	2.95E+04	4.34E-02	N/A	3.0E-03	S
C9-C12	C9-C12 Aliphatics	6.00E-02	1.00E-05	1.30E+00	25	NA NA	NA	NA	2.27E+03	1.10E+04	N/A	2.0E-01	S
C9-C10	C9-C10 Aromatics	6.00E-02 6.00E-02	1.00E-05	1.56E+00	25	NA NA	NA	NA	1.50E+05	7.00E+01	N/A	2.0E-01	S
C9-C18	C9-C18 Aliphatics	6.00E-02	1.00E-05 1.00E-05	7.92E-03	25	NA	NA	NA	1.78E+03	5.10E+04	N/A	5.0E-02	S
C11-C22	C11-C22 Aromatics	6.00E-02		1.66E+00	25	NA.	NA NA	NA	6.80E+05	1.00E+01	N/A	2.0E-01	S
	C. FORZ FIGURES	9.405-02	1.00E-05	7.32E-04	25	NA	NA N	NA	5.00E+03	5.80E+03	N/A	5.0E-02	S

Appendix C.4
Johnson & Ettinger Model - Data Entry Screen
Inhalation of Volatiles from Soil
Future Child Recreational Scenario - RME
Southwest Prpertiee, Welle G&H Supertund Site, Operable Unit 2
Writiney Barrel

				Vadose zone	Vadose zone	Vadose zone	Vadose zone	Floor-			enclosed	Crack-	Crack	Enthalpy of	Henry's law	Herr√s law	Vapor	Zoné
		Source-	scii	effective	ioi	aoil	20E	wall	initial soil	Bido.	space	to-total	depth	/aportzation s		constant at	viscosity at	effective
Chemical		building	air-filled	total fluid	intrinsic	relative air	effective vecor	seam	concentration	ventilation	pelow	area	below	eve. soù	ave. soil	eve. soil	ave. soli	diffusion
CAS No.			porosity,	saturation.	permeability.					rale.	grade.	ratio.	grade,	temperature,		temperature,	temperalure,	coefficient,
(numbers only.		seperation, LT	porosity,	Securation,	permeasily,	permeability, k _{re}	permeability, k,	perimeter, Xorack	used, CR	Charles	Α.	П	Z _{ones}	ΔH _{4.15}	H _{TS}	HTS	ите В прогосото	D ^{ee} v
-			. 1. 1.				· · · · · · · · · · · · · · · · · · ·					•			(atm-m³/mol)			(cm²/s)
no deshes)	Chemical	(cm)	(cm³/cm³)	(cm³/cm³)	(cm²)	(cm²)	(cm²)	(cm)	(µg/kg)	(cm³/s)	(cm²)	(unitiess)	(cm)	(cal/mol)	(Mm-m /mor)	(unitless)	(g/cm-s)	(6/11/15)
95636	Trimelhylbenzens, 1,2,4-	1	0.130	0.859	1.62E-08	0.390	6.33E-09	1.72E+04	4.36E+05	2.52E+06	9.50E+06		15	1.55E 03	4 96E-03	2.13E-01	1.75E-04	4.77E-04
540690	Dichloroethylene, 1,2- (total)	1	0.130	0.869	1.62E-08	0.390	6.33E-09	1.72E+04	5.96E+02	2.52E+06	9.50E+05	1.30E-04	15	1.73E+03	3.87E-04	1.67E-02	1.75E-04	J.77E-04
108678	Trimelhylbenzene, 1,3,5-	1 1	0.130	0.659	1.82E-08	0.390	6.33E-09	1.72E+04	7.13E+04	2.52E+08	9.50E+06	1 30E-04	15	1.55E+03	6.B0E-03	2.93E-01	1 75E-04	3.05E-04
104518	n-Bulylbenzene	1	0.130	0.659	1.62E-08	0.390	6.33E-09	1.72E+04	8.83E+03	2.52E+06	9.50E+08	1.30E-04	15	1.53E+03	1.00E-02	4.89E-01	1.75E-04	4.41E-04
91203	Naphthalene	1	0.130	0.659	1.62E-08	0.390	6.33E-09	1.72E+04	2.74E+03	2.52E+06	9.50E+06	1 30E-04	15	1.29E+04	1.52E-04	8.55E-03	1.75E-04	4.70E-04
99876	Isopropyltoluene, 4-	1	0.130	0.659	1.82E-08	0.390	6.33E-09	1.72E+04	7 31E+05	2.52E+06	9.50E+08	1 30E-04	15	1.57E+03	7.48E+00	3.22E+02	1.75E-04	4,39E-04
135988	Butylbenzene, sec-	1	0.130	0.658	1.82E-08	0.390	6.33E-09	1.72E+04	1.10E+06	2.52E+08	9.50E+06	1.30E-04	15		1.48E-02	6.27E-01	1.76E-04	4.88E-04
74873	Chioromethane	1	0.130	0.869	1.62E-08	0.390	6.33E-09	1.72E+04	2.49E+02	2.52E+06	9.50€+08	1.30E-04	15	1,20E+03	7.79E+03	3.35E-01	1.75E-04	7.86E-04
75014	Vinyl chloride	1	0.130	0.859	1.62E-08	0.390	6,33E-09	1,72E+04	2.61E+02	2.52E+08	9.50E+06	1.30E-04	15	5.00E+03	1,73E-02	7.46E-01	1.75E-04	6.44E-04
74839	Bromomethane	1	0,130	0.659	1.82E-08	0.390	6.33E-09	1.72E+04	3.69E+06	2.52E+08	9.50E+06	1.30E-04	15	5.39E+03	3.64E-03	1.65E-01	1.75E-04	4.48E-04
75003	Elhyl Chloride	1	0.130	0.659	1.82E-08	0.390	6.33E-09	1.72E+04	8.80E+01	2.52E+08	9.50E+08	1.30E-04	15	1.20E+03	7.78E-03	3.35€-01	1,75E-04	7.68E-04
75354	1,1-Dichloroethylene	1	0.130	0.659	1,82E-08	0.390	8.33E-Q9	1,72E+04	1.20E+02	2.52E+06	9.50E+06	1 30E-04	15	6.39E+03	1.47E-02	6.34E-01	1,75E-04	5.47E-04
78131	Trichloro-1,2,2-triflouroethane, 1,1,2-	1	0.130	0.659	1.82E-08	0.390	6.33E-09	1.72E+04	3.99E+05	2.52E+08	9.50E+06	1.30E-04	15	1.44E+03	4.65E-01	1.96E+01	1.75E-04	1.75E-04
67641	Acetone	1	0.130	0.858	1.826-08	0.390	6.33E-09	1.72E+04	3.24E+02	2.52E+08	9.50E+08	1.30E-04	15	7,58E+03	1.97E-05	8.50€-04	1.75E-04	2.07E-03
75150	Carbon Disuffide	1	0.130	0.65B	1.62E-08	0.390	8 33E-09	1.72E+04	8.78E+05	2.52E+06	9.50E+06	1.30E-04	15	6.86E+03	6.99E-03	3.01E-01	1,75E-04	6.34E+04
79209	Methyl Acetate	1	0.130	0.859	1.82E-08	0.390	8.33E-09	1.72E+04	5.03E+07	2.52E+08	9.50E+08	1.30E-04	15	1,50E+03	9.886-05	4.25E-03	1.75E-04	8.61E-04
75092	Methylene chloride	1	0.130	0.850	1.82E-08	0.390	6.33E-09	1.72E+04	7.27E+02	2.52E+08	9.50E+06	1,30E-04	15	7.03E+03	1 17E-03	5.03E-02	1.75E-04	8.35E-04
156605	Irana-1,2-Dichloroethylene		0.130	0.659	1.62E-06	0.390	6.33E-09	1.72E+04	7.73E+01	2.52E+08	9.50E+08	1.30E-04	15	1.42E+03	8.27E-03	3.58E-01	1,75E-04	4.32E-04
1634044	Methyl-Terliary-Bulyl Ether	-	0.130	0.859	1.62E-08	0.390	8.33E-09	1.72E+04	5.75E+01	2.52E+08	9.50E+08	1.30E-04	15	1.45E+03	5.18E-04	2.22E-02	1.75E-04	6.67E-04
75343	1.1-Dichloroethane		0.130	0.659	1.62E-08	0.390	8.33E-09	1,72E+04	3.58E+02	2.52E+08	9.50E+06	1.30E-04	16	7.45E+03	2.88E-03	1.24E-01	1.75E-04	4.58E-04
158582	cts-1,2-Dichloroethylene	+	0.130	0.659	1.62E-08	0.390	8.33E-09	1.72E+04	1.80E+02	2.52E+08	9.50E+08	1.30E-04	15	7.73E+03	2.04E-03	8.77E-02	1.75E-04	4.59E-04
78933	Butanone, 2- (MEK)		0.130	0.659	1.62E-08	0.390	5.33E-09	1.72E+04	4.63E+07	2.52E+06	9.50E+08	1.30E-04	15	1.49E+03	4.90E-05	2.11E-03	1.75€-04	9.45E-04
71556	1.1.1-Trichloroethane		0 130	0.659	1,62E-08	0.390	6.33E-09	1.72E+04	6.01E+05	2.52E+06	9.50E+06	1.30E-04	15	7.88E+03	8.50E-03	3.68E-01	1.75E-04	4.76E-04
110827	Cyclohaxane	 	0.130	0.659	1.62E-08	0.390	8.33E-09	1.72E+04	3.88E+05	2.62E+06	9.50E+06	1.30E-04	15	1.49E+03	1.75E+00	7.54E+01	1.75E-04	4 B5E-04
71432	Benzene	i i	0.130	0.659	1.62E-08	0.390	6.33E-09	1,72E+04	Z.10E+02	2.62E+08	9.50E+08	1 30E-04	15	8.12E+03	2.69E-03	1.16E-01	1.75E-04	5.42E-04
79016	Trichloroethylene	-:-	0.130	0.659	1.62E-08	0.390	6.33E-09	1.72E+04	Z.81E+02	2.52E+06	8.50E+05	1.306-04	15	8.56E+03	4.79E-03	2.08E-01	1.75E-04	4.83E-04
106872			0.130	0.659	1,62E-08	0.390	6.33E-09	1.72E+04	4.45E+02	2 52E+06	9.50€+06	1 30E 04	15	1.51E+03	3.70E-01	1.59E+01	1.75E-04	5.98E-04
106883	Methyl cyclohexane Toluene		0.130	0.659	1.52E-08	0,390	6.336-09	1.72E+04	5.85E+02	2 52E+08	9.50E+08	1.30E-04	15	9.15E+03	2.92E-03	1.26E-01	1.75E-04	5.34E-04
		1						1.72E+04	1,47E+02	2.52E+08	9.50E+08	1.30E-04	15	9.56E+03	7.83E-03	3 37E-01	1.75E-04	4.39E-04
127184	Tetrachtoroethylene		D.130	0.659	1.62E-08	0.390	6,33E-09		3.11E+02	2.52E+08	9.50E+05	1.30E-04	15	9.80E+03		6.65E-02	1.75E-04	4.65E-04
108907	Chlorobenzene	1	0.130	0.659	1.52E-08	0.390	6.338-09	1.72E+04					15		3.186-03	1.37E-01	1.75E-04	4,50E-04
100414	Ethylbenzene	1	0.130	0.659	1.62E-08	0.390	6,33E-09	1.72E+04	1.84E+02	2.52E+06	9.50E+06	1.30€-04	15	1.02E+04 1.54E+03	5.88E-08	2.52E-04	1.76E-04	3.75E-03
1330207	Xylenes	_ ! _	0.130	0.659	1.82E-08	0.390	6,33E-09	1.72E+04	1.50E+05	2.52E+06	9.50E+06	1.30€-04	15		1.00E-03	4.67E-02	1.75E-04	4.47E-04
100425	Styrene	1	0.130	0.659	1.62E-08	0.390	6.33E-09	1.77E+04	5.44E+06	2.52E+08	9.50E+08	1,30E-04		1.05E+04		5.51E-01	1.75E-04	3.95E-04
98828	Isopropy/benzene	1	0.130	0.659	1.62E-08	0.390	6.33E-09	1.72E+04	1.08E+08	2.52E+08	9.50E+06	1.30E-04	15	1.54E+03	1.28E-02	5.77E-03	1.75E-04	5.65E-04
79345	1,1,2,2-Tetrachloroethane	1	0.130	0.659	1.62E-08	0.390	6.33E-09	1.72E+04	1.15E+08	2.52E+06	9.50E+08	1.30E-04	15	1.05E+04	1.34E-04		1.75E-04	2.56E-04
541731	Dichlorobenzene, 1,3-	1	0.130	0.659	1.62E-08	0.390	6.33E-09	1.72E+04	1.00E+02	2.52E+06	9.50€+06	1.30E-04	15	1.50E,+03	4.11E-03	1.77E-01		4.38E-04
106467	1,4-Dichlorobenzene	1	0.130	0.659	1.62E-08	0.390	6.33E-09	1.72E+Q4	2 50E+02	2.52E+06	9.50E+06	1.30E-04	15	1.12E+04	9.89E-04	3.83E-02	1.75E-04	
	1,2-Dichlorobenzene	1	0.130	0.659	1.62E-08	0.390	6,33E-09	1.72E+04	5.10E+01	2.52E+06	9.50£ +08	1.30E-64	15	1,21E+04	5.51E-07	2,37E-05	1,75E-04	3.94E-02
	1,2,4-Trichlorobenzene	. 1	0.130	0,659	1.62E-06	0.390	6.33E-09	1,72E+04	1,13E+06	2.52E+06	9.50E+06	1,30E-04	15	1.32E+04	4,35E-04	1.87E-02	1.75E-04	2.25E-04
100527	Benzaldehyde		0.130	0,659	1,82E-08	0.390	6.33E-09	1,72E+04	1.74E+08	2.526+08	9.50E+08	1.30E-04	15	1.53E+03	2.29E-05	9.64E-04	1,75E-04	1,356-03
91576	Melhylnaphihalene, 2-	1	0.130	0,659	1.62E-08	0.390	6.33E-09	1.72E+04	5.41E+03	2.52E+08	9,50E+06	1.30E-04	15	1.51E+03	8.85E-04	3.815-02	1.75E-04	3.13E-04
92524	Biphenyl, 1,1'-	1	0.130	0.869	1.82E-08	0.390	6,33E-09	1,72E+04	6.61E+04	2.52E+06	9,50E+00	1.30E-04	15	1.47E+03	2.66E-04	1.14E-02	1.75E-04	3.15E-04
208968	Acenephthylene	1	0.130	0.659	1.82E-08	0.390	6.33E-09	1.72E+04	4.00E+02	2,52E+00	9.50E+08	1.30E-04	15	1.51E+03	2.45E-04	1.06E-02	1.75E-04	3,38E-04
83329	Acenaphthene	11	0.130	0.659	1,62E-08	0.390	6.33E-09	1.72E+04	8.09E+04	2.52E+08	9.50E+08	1,30E-04	15	1,01E+04	3.67E-05	1,58E-03	1.756-04	7.33E-04
132649	Dibenzofuran	1	0.130	0.669	1 826-08	0.390	6.33E-09	1,72E+04	1.79E+09	2.52E+08	9.50E+08	1.30E-04	15	1.47E+03	3.51E-03	1,51E-01	1.75E-04	1.88E-04
86737	Fluorena	1	0.130	0.659	1.825-08	0,390	6.33E-09	1.72E+04	2.97E+04	2.52E+05	9,50E+08	1,30E-04	15	1.62E+04		9.48E-07	1.75E-04	8,16E-01
85018	Phenanthrene	1	0.130	0.859	1.82E-08	0.390	6.33E-09	1.72E+04	3,64E+04	2.52E+06	9.50E+08	1.30E-04	15	1.486+03		4.90E-03	1,75E-04	3.50E-04
120127	Anthracene	1 .	0.130	0.859	1,62E-08	0.390	5.33E-Q9	1.72E+04	7.57E+03	2.52E+06	9,50E+08	1.30E-04	15	1.84E+04		5.43E+04	1.75E-04	1.60E-03
C5-C8	C5-C5 Aliphatics	1	0.130	0.859	1.52E-06	0,360	8.33E-08	1,72E+04	9.836+04	2.52E+06	9.50E+05	1.30E-04	15	NA	6,48E-01	2.79E+01	1.75E-04	3.64E-04
C9-C12	C9-C12 Aliphatics	1	0.130	0.559	1 82E-08	0.390	6.33E-09	1.72E+04	9.11E+04	2.52E+05	9.50E+05	1.30E-04	15	NA NA	7.50E-01	3.38E+01	1.75E-04	3.64E-04
C9-C10	C9-C10 Aromatics	1	0.130	0.859	1.82E-08	0.390	6.33E-09	1.72E+04	4.31E+05	2,62E+08	9.50E+06	1.30E-04	15	NA	3.96E-03	1.70E-01	1.75E-04	3.69E-04
	C9-C18 Aliphatics	7	0.130	0.659	1.62E-08	0.390	8.33E-09	1.72E+04	6.04E+06	2 52E+06	9.50€+05		15	NA	8.286-01	3.58E+01	1.75E-04	3,64E-04
C9-C18	Carc to Aliphanica											1.30E-04	15	NA.	3,60E-04	1.55E-02	1,75E-04	4 27E-04

Appendix C.4
Johnson & Etilnger Model - Data Entry Screen
Inhalation of Volatilee from Soll
Future Child Recreational Scenario - RNE
Southwest Persina, Wells G&H Superfund Site, Operable
Whitney Barrel

Chemical CAS No. (numbers only.		Diffusion path tength,	Convection path length,	Soil-water partition coefficient,	Source Vapor conc.,	Creck radius,	Average vapor flow rate into bidg	Crack effective diffusion coefficient,	Area of crack,	Exponent of equivalent foundation Peciat number,	infinite source indoor attenuation coefficient,	Infinite source bidg. conc.,	Unit risk factor,	Reference conc.,
no dashes)	Chemical	{cm}	لب (cm)	K _e (cm³/g)	(h6/m _s)	(cm)	Q _{ma} (cm³/s)	D ^{oteck} (cm²/s)	A _{rmat} (cm²)	exp(Pef) (unitless)	o. (unitless)	C _{hurters} {µg/m³}	URF (µg/m³) ⁻¹	(mg/m²)
96638	Trimelhy/benzene, 1,2,4-	1 1	T			· · · · · · · · · · · · · · · · · · ·								
540590	Dichloroethylene, 1,2- (total)	1	15	7.43E+00 2.57E-01	N/A N/A	0.10	2.74E+01 2.74E+01	4.77E-04	1.23E+03	2.75E+303	1,08E-05	N/A	N/A	6.0E-03
108878	Trimelhylbenzene, 1,3,5-		15	3.34E+00	N/A	0.10	2.74E+01	3.77E-04 3.96E-04	1 23E+03	#NUMI	1.08E-05	N/A	#N/A	#N/A
104516	n-Bulylbenzene	1	15	5.02E+00	N/A	0.10	2.74E+01	4.41E-04	1.23E+03 1.23E+03	#NUM #NUM	1.08E-05 1.08E-05	N/A N/A	N/A #N/A	6.0E-03 #N/A
91203	Naphthalene	1	15	4.00E+00	4 27E+03	0.10	2.74E+01	4,70E-04	1.23E+03	9.67E+307	1,08E-05	4.61E-02	N/A	3.0E-03
99575	isopropyltoiuene, 4-	1	16	3 16E+00	N/A	0.10	2.74E+01	4,39E-04	1.23E+03	#NUMI	1.08E-05	N/A	N/A	4.0E-01
135968	Butylbenzene, sec-	1.	16	8.22E+01	N/A	0.10	2.74E+01	4.86E-04	1.23E+03	5.47E+297	1.00E-05	N/A	#N/A	#N/A
74873	Chloromethane		15	2.66E-02	3.24E+05	0.10	2.74E+01	7.86E-04	1,23E+03	1.14E+189	1.08E-05	3.51E+00	N/A	9.0E-02
75014	Vinyl chioride	1	15	3.72E-02	6.48E+05	0.10	2.74E+01	6.44E-04	1.23E+03	5.27E+224	1.08E-06	8.99E+00	8.8E-08	1.0E-01
74839	Bromomethans	1	15	2.66E-02	N/A	0.10	2.74E+01	4.48E-04	1.23E+03	#NUMI	1.08E-06	N/A	N/A	5.0E-03
75003	Ethyl Chloride	1	15	2.66E-02	1.12E+05	0.10	2.74E+01	7.68E-04	1.23E+03	1.14E+189	1.08E-05	1,21E+00	N/A	1.0E+01
75354	1,1-Dichloroethylene	1	15	1.18E-01	2.04E+05	0.10	2.74E+01	5.47E-04	1.23E+03	3.62E+284	1.08E-05	2,21E+00	N/A	2.0E-01
76131	Trichloro-1,2,2-triflouroethane, 1,1,2-	1	15	4.50E-01	N/A	0.10	2 74E+01	1.75E-04	1.23E+03	#NUM!	1.07E-05	N/A	N/A	3.0E+01
87841	Acetone		15	1.15E-03	1.37E+03	0.10	2.74E+01	2.07E+03	1.23E+03	9.18E+69	1 09E-05	1.48E-02	N/A	N/A
75150	Carbon Disulfide		15	1.03E-01	N/A	0.10	2.74E+01	6.34E-04	1,23E+03	1.25E+228	1.08E-06	N/A	N/A	7.0E-01
79209 75092	Methyl Acelete		15	6.64E-03	N/A	0.10	2.74E+01	8.61E+04	1.23E+03	1.17E+188	1.08E-05	N/A	#N/A	#N/A
158606	Methylene chloride		15	2.345-02	1.50E+05	0.10	2.74E+01	8.35E-94	1.23E+03	8.55E+227	1,08E-05	1.73E+00	4.7E-07	3.0E+00
1634044	Methyl-Tertiary-Bulyl Ether		15	1.05E-01	8.20E+04	0.10	2.74E+01	4.32E-04	1.23E+03	#NUMI	1.08E-05	8 85E-01	N/A	2.0E-01
75343	1,1-Dichloroethane		15 15	7.68E-02	4.58E+03	0.10	2.74E+01	8.67E-04	1.23E+03	9.48E+216	1 086-05	4.96E-02	N/A	3.0€+00
156592	cls-1,2-Dichloroethylene		15	6.32E-02 7.10E-02	1.62E+05	0.10	2.74E+01	4.58E-04	1.23E+03	MUNA	1.08E-05	1,75E+00	N/A	5.0E-01
78933	Butanone, 2- (MEK)	 -	15	7.66E-03	5 65E+04 N/A	0.10	2.74E+01	4.59E-04	1,23E+03	MUM#	1.08E-05	6,12E-01	N/A	2.0E-01
71568	1,1,1-Trichloroethane	;	15	2.20E-01	N/A	0.10	2.74E+01 2.74E+01	9 456-04	1.23E+03	1.18E+153	1.08E-05	N/A	N/A	N/A
110627	Cyclohaxane	;	16	3.20E-01	N/A	0.10	2.74E+01	4.75E-04 4.85E-04	1.23E+03	4.36E+304	1.08E-06	N/A	N/A	2.2E+00
71432	Benzene	•	15	1.18E-01	7.41E+04	0.10	2.74E+01	5.42E-04	1.23E+03 1.23E+03	3.16E+298	1.08E-06	N/A	#N/A	ANDA
79016	Trichiorpethylene		15	3.32E-01	1.09E+05	0.10	2.74E+01	4.83E-04	1.23E+03	1.61E+267 3.77E+299	1.08E-05	8.02E-01	7.8E-08	3.0E-02
105872	Methyl cyclohexane	1	15	5.38E-01	3 35E+08	0.10	2.74E+01	5 98E-04	1.23E+03	1.50E+242	1.08E-05 1.08E-05	1.18E+00 3.62E+01	1.1E-04 N/A	4.0E-02
108883	Toluene	1	15	3.64E-01	1.28E+05	0.10	2.74E+01	5.34E-04	1.23E+03	1.10E+271	1.08E-05	1.39E+00	N/A	3.0E+00 4.0E-01
127184	Tetrachiomethylene	1	15	3.10E-01	9.19€+04	0,10	2.74E+01	4 39E-04	1,23E+03	MNUM	1.08E-05	9.92E-01	5.9E-06	N/A
108907	Chlorobenzene	1	15	4.38E-01	3.21E+04	0.10	2.74E+01	4.55E-04	1,23E+03	#NUMI	1.08E-06	3.48E-01	N/A	5.0E-02
100414	Ethylbenzene	1	15	7.26E-01	2.88E+04	0.10	2.74E+01	4.60E-04	1,23E+03	PNUMI	1.08E-06	2.90E-01	N/A	1.0€+00
1330207	Xylenes	1	15	4.82E-01	N/A	0.10	2.74E+01	3.75E-03	1.23E+03	4.03E+38	1,09E-05	N/A	N/A	1.0E-01
100426	Styrene	1	15	1.55E+00	N/A	0.10	2.74E+01	4.47E-04	1.23E+03	#NUM!	1,08E-05	N/A	#N/A	#N/A
96828	laopropylbenzene	1	15	1.66E+01	N/A	0.10	2.74E+01	3.95E-04	1,23£+03	#NUM!	1.08E-05	N/A	N/A	4.0E-01
70345	1,1,2,2-Tetrachioroethane	1	15	1.87E-01	N/A	0.10	2.74E+01	5.65E-04	1.23E+03	1.98E+258	1.08E-05	N/A	#N/A	#N/A
541731	Dichlorobenzene, 1,3-	1	15	3.40E-01	3,19E+04	0.10	2.745+01	2.56E-04	1.23E+03	#NUM	1.07E-05	3.42E-01	N/A	N/A
108467	1,4-Dichlorobenzene	1	15	1.23E+00	6.66E+03	0.10	2.74E+01	4.38E-04	1.23E+03	#NUMi	1,06E-Q5	7,19E-02	N/A	8 0E-01
95501	1,2-Dichlorobenzene	11	16	1,07E-01	3,64E+00	0.10	2.74E+01	3.94E-02	1.23E+03	4.74E+03	1.09E-05	4.28E-05	N/A	N/A
120821	1,2,4-Trichlorobenzene	1	15	3.56€+00	N/A	0,10	2.745+01	2.25E-04	1.23E+03	#NUM	1.07E-05	N/A	N/A	2.0E-01
91678	Benzaldehyde	11	15	6.54E-02	N/A	0.10	2.74E+01	1.35E-03	1.23E+03	2.60E+107	1.08E-05	N/A	#N/A	#N/A
92624	Methylnsphthalene, 2- Biphenyl, 1,1'-	1	15	1.70E+01	1,20E+04	0.10	2.74E+01	3.13E-04	1 23E+03	MATAWA	1.08E-05	1.29€-01	N/A	3 OE-03
208988	Acenaphthylene		15	1.25E+01	N/A	0.10	2.74E+01	3,15E-04	1.23E+03	#NLR#	1,08E-05	N/A	N/A	N/A
83329	Acenaphthene		16 15	0.57E+00 1,42E+01	4.31E+02	0.10	2.745+01	3.36E-04	1,23E+03	#NUM	1.08E-05	4,64E-03	N/A	3.0E-03
132649	Dibenzofuren	-	15	1.63E+01	N/A 1.64E+04	0.10	2.74E+01	7.33E-04	1,23E+03	2.13E+197	1.08E-05	N/A	N/A	3.0E-03
85737	Fluorene		15	1.63E+01	1.64E+04 N/A	0.10	2.74E+01	1.68E-04	1.23E+03	MNUM	1.07E-05	1.75E-01	N/A	N/A
85018	Phenanthrene	'	15	2.63E+01	6.27E+03	0.10	2.74E+01	8.18E-01	1.23E+03	1.50E+00	3.24E-05	N/A	N/A	3.0E-03
120127	Anthracene	<u>-</u>	15	5.90E+01	N/A	0.10	2.74E+01	3.50E-04	1.23E+03	ANUNA	1.08E-05	6.76E-02	N/A	3.0E-03
C5-C8	C5-C8 Aliphatics		15	4.53E+00	3.84E+08	0,10	2 74€+01	1.60E-03	1.235+03	5.14E+80	1.08E-05	N/A	N/A	3.0E-03
C9-C12	C9-C12 Aliphatica	 i	15	3,00E+02	5.76E+08	0.10	2.74€+01	3.64E-04	1.23€+03	MUM	1,08E-05	4.14E+03	N/A	2.0E-01
C9-C10	C9-C10 Aromatics	1	15	3.56E+00	1.95E+07	0.10	2.745+01	3,64E-04	1.23E+03	#NUM	1.08E-05	7,29E+01	N/A	2.0E-01
C9-C18	C9-C18 Aliphalics		15	1.36E+03	1.55E+08	0.10	2.74E+01 2.74E+01	3.69E-04	1.23E+03	#NUM	1.08E-05	2.10E+02	_N/A	5.0E-02
C11-C22	C11-C22 Aromatics	1	15	1.00E+01	6.23E+06	0.10	2.74E+01 2.74E+01	3.64E-04	1.23E+03	MUNK	1.08E-05	1.70E+03	N/A	2.0E-01
	- I		19	1.002101	V.23C 100	V.10		4.27E-04	1.23E+03	#NUMI	1.06E-05	6.72E+01	N/A	5.0E-02

Appandix Q.4
Johnson & Ettinger Model - Qual Entry Spreen
Inhibitation of Votative from Sel
Future Child Recreational Scenario - RME
Southwest Prparties, Weels G&H Superfund Sta, Operable Unit 2
Whitney Semi-

RISK-BASED SOIL CONCENTRATION CALCULATIONS:

INCREMENTAL PISK CALCULATIONS:

Chemical GAS No. (numbers only,		indoor erzoauru eoil conc., cercinogen	Indoor exposure soil conc	Filek-based indoor exposure soil conc	Soil esturation conc., C.,,	Final indoor socium soli		thin from Vapor Intrudion to Indoor sky, carcinogen	quotient from vapor intrusion to indoor sir. Toncarcinosen
no dashas)	Chemical	(µo/rg)	(µo/kg)	(µg/kg)	(µg/kg)	(µg/kg)		(unides)	/ioncarcinagen (unifess)
95836	Yrimstrebenzane, 1.24-	- NA	NA	NA.	4.356+05	N/A	1	NA.	, NA
540590	Dichioroethylene, 1,2- (lotal)	NA	NA.	- AA	6.98E+02	NA.	ł	- NA	NA NA
108578 104518	Trimethybergene, 1,3,5-	NA NA	NA.	NA.	7 13E+64	NA	1	NA	NA
91203	Nachthalene	NA NA	NA NA	NA NA	5.53E+03	NA	}	NA.	NA NA
99676	Leapropyliolyene, 4-	NA NA	NA NA	NA.	1,30E+05 7.31E+05	NA NA	4	NA	3.4E-04
135988	Bulylbanzene, sec-	NA.	NA	NA.	1.10E+08	NA	j	NA.	NA NA
74673 76014	Chlorometune Vinul chiorida	NA.	NA	2	1,37E+05	NA.	1	NA	8.7E-04
74839	Bromometune	NA NA	NA NA	NA	8.33E+05 3.69E+06	NA NA	l	1.2E-07 NA	1.6E-03
75003	Ethyl Chloride	. NA	NA NA	NA.	1,37E+06	NA .	{	NA NA	2.7E-06
75354 76131	1,1-Olchloroethylene	NA.	NA.	NA.	8.39E+05	NA.	}	NA.	2.6E-04
67641	Trichlore-1,2,2-triflouroettane, 1,5,2- Acetane	NA.	NA.	NA NA	3,99E+05	NA	ì	NA.	NA NA
75150	Carbon Disultide	NA	NA.	NA NA	2.01E+08 8.78E+05	NA NA		NA NA	NA NA
79209	Methyl Acetale	NA.	NA.	NA.	5.03E+07	NA NA		NA NA	NA.
75092 155605	Methylene chloride trane-1,2-Olchioroethylene	NA NA	NA.	NA.	2.96E+06	N		1,6E-09	1.3E-06
1634044	Metry-Tertary-Butyl Ether	NA.	NA NA	NA NA	2.12E+06	NA NA		NA.	9.8E-05
75343	1,1-Dichioroethane	NA.	NA.	NA	1,42E+07 1,39E+05	NA.		NA	3,76-07 7 8F-05
156592	cle-1,2-Okthorcetyjene	NA.	NA.	NA.	9,75E+05 4,63E+07	NA		NA.	6.6E-05
78933 71558	Butanone, 2- (MEK) 1,1,1-Trichkroethene	NA NA	NA NA	NA .	4,63E+07	NA	l	NA.	NA
110827	Cyclohecone	NA	NA	<u>\\\\</u>	6.01E+05 3.88E+05	NA NA	l	NA NA	NA.
71432	Benzene	NA.	NA I	NA.	5.74E+05	NA.		1,25-08	5.9E-04
70016 108872	Trichiarostylene Methyl cycloheune	NA.	NA.	NA.	6.05E+05	N/A		2.5E-07	6.6E-04
108883	Toluene	NA.	NA NA	NA NA	2.96E+04 3.02E+05	NA NA		NA.	2.7E-04 7.7E-06
127184	Tetrachicrostwiene	NA.	NÃ.	- NÃ -	1.08E+08	NA		11E-08	7.7E-05
108907 100414	Chlorobenzene	NA .	NA.	NA NA	3.04E+05	NA.		NA	1.3E-04
1330207	Ethyberzene Xylanes	NA NA	NA NA	NA NA	1,55 5+05	NA		NA	6.5E-06
100425	Styrene	NA.	NA NA	NA NA	1,50E+05 6.44E+05	NA		NA NA	NA NA
95528	leopropylbenzene	NA	HA	NA .	1.06E+08	NA.		NA NA	NA.
79345 541731	1,1,2,2-Tetrachlorosthene Dichloroberzene, 1,3-	NA.	NA.		1.15E+06	M		NA.	NA
106467	1,4-Dichlorobenzers	NA	NA NA	NA NA	3.82E+04 1.08E+05	NA.		NA	NA.
95501	1,2-Dichicrobenzone	MA		NA.	B.50E+06			NA NA	2.0E-06
120821	1.2.4-Trichloroburzana	NA.	NA	NA.	1.135+05	NA.		- NA	NA I
100527 91578	Benzsidehyde Metrytrephihalane, 2:	NA NA	NA.	NA	1.74E+00	NA.		NA.	NA.
92524	Sistema, 1,1'-	- NA	NA	NA	8.81E+04	NA.		NA NA	9.6E-04
205968	Acenspheniume	NA.	NA .	NA.	3.84E+04	NA		NA -	3.4E-06
63329 132648	Acenaphthene Olberssäuren	NA NA	NA NA	NA.	5,09E+04	HA.		. NA	NA.
B6737	Fluorene	NA NA	NA NA	NA NA	1,55E+05 2,97E+04	NA NA		NA NA	NA.
6501B	Phonombrone	NA.	NA .	NA.	3.64E+04	NA.		NA.	5.0E-04
120127 C5-C8	Antivacene C6-C8 Almination	NA NA	NA	HA	2,57E+03	NA.		NA NA	NA.
CD-C12	C9-C12 Allohatica	NA.	NA NA	NA NA	7,800 +07	NA.		NA NA	4.5E-01
CP-C10	C9-C10 Aromatice	, NA	NA.	NA	2.12E+07 1.02E+08	- 10			8.1E-03 9.3E-02
C9-C18 G11-C22	CP-C18 Alphalics	NA .	NA.	NA	1,365,+07	NA.		NA .	1.96-01
011-022	C11-C22 Aromatos	NA	NA	NA.	6.92E+07	NA.		NA	3.06-02
								95% UCL	
								Cancer	85% UCL
								Risk	Hr
							TOTAL:	4E-07	7.9E-01
]= Cancer risk > 1
								<u> </u>	or HQ/HI>1E+00
	Trimetiniterroses, 1,2,4-	MESSAGE: Sall	conc. 🕶 saturado	n (Ceat), Riek/I	betalooks DH	et Cest.			41 1 W 11 1 1 C 1 C 1
	Dichloroety/lene, 1.2- (lutal) Trimelhylbengene, 1.3.5-	MESSAGE: 808	cono. >= unturnito cono. >= esturatio	n (Cast), Risk/I	40 calculated	et Cost.			
	n-Butytownsone	MESSAGE Sof	CENC. >= SEN/ASQ	n (Cast), Risk/	nu cacquagg. 10 calculated	et Cast.			
	Naphthaiere								
	Incorrepylicitative, d- Butylburcame, enc-	MESSAGE: Sol	CONG. >4 AMANAGO	* (Ceat). Riet/	C calculated	et Cast.			
	Chloromethene	HICOGAUE: SOI	conc. == saluratio	n (SAM), MAK/	THE GROWING	E CARL			
	Vinvi chloride								
	Bromomethane Ethyl Chloride	MESSAGE: Soll	conc. >= sakrašo	n (Cast), Riek/I	HQ calculated	at Cost.			
	1.1-Dichloroelmiene								
	Trichiaro-1,2,2-tiflourosthane, 1,1,2-	MESSAGE: Sol	cono. >= estureto	n (Cast), Riekf	10 calculated	at Cost			
	Acetone								
	Carbon Disulfide Methyl Acetate	MESSAGE SOL	cono. >= suturatio	n (Ceat). Riek/i	(C) calculated	et Const.			
	Methylane chicride	MESSAGE: SOI	cono. >= saturado	n (Cast). Riek/i	4C) calculated (at Coat.			
	trans-1,2-Dichlorpethylene								
	Methyl-Tertieny-Butyl Ether 1,1-Dichloroethane								
	cie-1.2-Dichigrosthylene								
	Butanone, 2- (MEK)	MESSAGE: Sof	cono, == saturado	n (Coul). Right	(O calculated	H Chit			
	1,1,1-Trichloroethane	MESSAGE Sol	conc. >= eaturatio	n (Cest), Riek/s	(Controllers)	et Casat.			
	Cyclohecene	MESSAGE SOI	conc. >= sabutadio	A (Caral), Right	O caicolated of	of Card			

Accende C.4.
Johnson & Richard Hodel - Onle Sintry Screen Inhalaction of Volatilies from Soll Future Chief Repressional Bosonsto - CT Southwest Promision. Water Old-Househand Statistics of Southwest Promision.

CALCULATE RISK-BASED BOIL CONCENTRATION (enter "X" in "YES" too;

SL-SCREEN Vereion 2.3, 03/01

YES OR
CALCULATE INCREMENTAL RIBKS FROM ACTUAL BOIL CONCENTRATION (enter "x" in "YES" box and initial and conc. below

	Enser mital sali ca	ncenimizm.	ENTER Depn	BATTER	EMTER	ENTER		ENTER	i										,	
ENTER		ENTER	below prede			Value are		User-defend	ENTER Vedes sons	ENTER Vaccor 2004	ENYER Vadose 200s	ENTER Vadom 700a	ENTER	ENTER Averaging	ENTER	ENTER	ENTER	ENTER	ENTER	ENTER Yarnet hazerd
Chamical		Magn Ball	to bottom of enclosed	Charles to the	Averages	5G5 acti Note		acil vecci	edidy	soil lotei	act water-filed	sol croanic	time for	(krys for	Egyptote	Except	Exposure	Coversion	rhalt for	cuction icr
CAS No.		conc	space foor.	of contemination.	temperature.	funed to entirent	• OA	Dermesbility.	bulk density.	porophy.	pomety,	carbon traction,	carolnooens,	noncertinopene.	duration.	treatment.	time	fector	cardinocene.	RECORDERATE.
(ग्यामध्यम् समेर्		GR	le .	ш	T _{de}	soj vabo.		Κ.	_ ^~`	r.v	8,	<u>. </u>	ATC	ATNC	ED	EF .	F	CF .	TF	тна
no destree)	Chemical	(vg*g)	(15 or 200 cm)	(cm)	(°C)	portugation()	- ^{740te}	(cm ₂)	(p/cm²)	(uni(444)	(am²/am²)	(unitions)	(971)	(Arte)	(479)	(C##44)	(hrs/day)	(Jung-jer)	(unitions)	(unitions)
10434	Trimethylbenzene, 1,2,4-		16	15	10	LS	7 , F			0.43	0.3	0.002	70	2	2	26	2.5	8760	1.05-06	Ϋ́ — —
Section	Dichloroethylene, 1,2- (total)	1	16	15	10	LE	111		15	0.43	0.3	9.002	70	2	2	28	2.5	8760	1.0E-06	
100076	Trimethylbenzene, 1,3,5	İ	16	15	10	is	T''',		1.6	0.43	0.3	0.002	70	2	2	26	2.5	8760	1 0E-06	
194510	n-Bulytoenzene		16	16	10	LS .	11		1.6	0.43	0.5	9.902	70	2	2	26	2.5	8760	1.0E-06	
#13#4	Naphthalane	2.74E+03	16	15	10	L6	1	····	1.8	0.43	0.3	0 002	70	2	2	26	2.5	8760	1.0E-06	↓
tma74	laopropytoluene, 4-		16	15	10	LS	1		1.6	0 43	03	0 002	70	2	2	26	2.6	8760	1 0E-06	+
130050	But/Ibenzere, eec-	2.49€+02	15	13	10	LS			1.5	0.43	0.3	0.002	70	2	2	76	2.6	8760 8760	1.0E-08	+
74473 79014	Chloromethane Vinyl chloride	2.61E+02	18	15	10	- LB	[15	0.43	03	0.002	70	2	-	28	2.5	8760 8760	1.06-08	+ + -
74636	Bramomethine	1.0.1	15	15	10	LS	1 1 1		13	0.43	03	0002	70			26	2.6	8760	1.06-08	-
79063	Ethyl Chloride	8,60E+01	16	15	10	LB			1.6	0.43	0.3	0 902	70	2		26	7.5	8780	1.0E-08	
75304	1.1-Dichloroethylene	6.34E+01	75	15	10	LS	1 - 1	-	15	0.43	0.3	0.002	70	2	2	26	2.6	8750	1 0E-06	1 1
70121	Trichingo 1.2.2-iritina enerthene. 1.1.2.		18	15	10	.6	13			0.43	9.5	0 000	70	ž	1	26	2.5	6760	1.0€-06	1
47611	Acetone	3.24E-02	15	15	19	Ls	1.4		1.5	0.43	03	0 002	70	2	2	20	2.\$	6760	1.0E-05	 } -
7114	Carbon Disulfide	 	15	15	10	LB	1		1.6	0.43	0.3	0 002	70	2		76 26	2.5	6760 8760	1.0E-06	
7000 71001	Methyl Acetele Methylene chloride	7.27E+02	16	15	10	L6	+		1.6	0.43	03	0.002	70	2		26	25	8780	1.0E-06	+-;1
79061 130608	trans-1.2-Dichloroethylene	7.73E+01	15	15	16	LS	+++		1.6	0.43	03	0.002	70		2	26	2.5	8780	1,0E-08	
1000	Metry-Tortary-Butyl Ether	5.75E+01	16	15	10	LB	+ ; +		1.6	0.43	0.3	0.002	70			28	2.5	8780	1 0E-06	+
76341	1,1-Dichioroethane	3.56E+02	16	15	10	13	1.1		1.5	0.43	0.3	0.002	70	- 2	2	26	2.6	8760	1 0E-68	1
198947	cia-1.2-Dichlorosthylene	1.80E+02	15	15	10	1.8	1:1		1,5	0.42	03	0.002	70		******	26	2.5	8780	1 0E-08	1
70033	Sutunione, 2- (MEX)		15	15	10	LS	1		1.6	0.43	0.3	0.002	70		2	28	2.6	8780	1 0€-08	1
7166	1,1,1-Trichlorosthune		15	15	10	LB	1		1.5	0.43	0.3	0.002	70	3	2	26	2.5	8780	1 0E-08	1
110027	Cyclohevane		15	18	10	Ų5	1		1.5	0 43	0.5	0.002	70	2	2	218	25	5750	1.0E-0d	1
FIGE	Benzene	8.08E+01	15	15	10	i is	1.1		1.6	0.43	0.3	0.002	70	2	2	28	2.5	8760	106-08	1 !
75014	Trichloroethylene	2016-02	15	15	10	U.B	1-1-1		1.5	0.43	0.3	0.002	70	2	2	26	2.5	8780	1.0E-08 1.0E-08	
106177	Methyl cyclohexane	4.49E+02	15	13	10	1.5	1		1.5	0.43	03	0.002	70	2 2	- 2	26	2.5	8760 8760	1.05-06	+ ; -
19665	Toluene Tetrachignosthylene	1 47E+02	15	16	10	18	1		1.5	0.43	0.3	0.002		2		28	2.5	8763	1.0E-06	+
1271	Chlorobertzere	3.11E+02	19	15	10	- iš	╫		1.5	0.43	0.3	0.002	70	2	2	26	2.6	8760	1.0E-06	
100414	Ethybenzene	1 B4E+02	15	16	10	LS	11		1.5	0.43	0.3	0.002	70	2	2	26	2.5	8760	1.DE-08	
(33004)	Xylanes	1	16	16	10	LS.	1	•	15	0.43	0.9	0.002	70	2	2	26	2.5	8760	1.0E-06	
400428	Styrame		15	13	10	Le	1		1.5	0.43	0.3	0.002	70	2	2	26	25	8760	I 0€-08	1
MATE	iscoropytenzene		15	16	10	l S	1		1.5	0.43	0.3	0.002	76	2	2	28	2.5	8760	1.0E-06	
710-4	1,1,2,2-Tetrachlorgethane	1	15	15	10	re	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		1,5	043	0.3	0.002	70	7	2	26	2.6	8760	1.0E-06	1
HIDT	Dichlorobersone, 1,3-	1 00E+02	18	16	10	Les	1,1		1.5	0.43	0.8	0.002	70	2	2	26	2.5	8760	1.0E-06	
CAMP .	1,4-Dichlorobenzene 1,2-Dichlorobenzene	2 80E+02 8.10E+01	18	16	10	L8	1		1.5	0.43	0.3	0.002	70 70	2	2	26	2.5	6760 6760	1.0E-06	
philips Sanatri	1,2,4-Trichicrobergone	4.106.101	1	15	(0	2)	+++		1.5	0.43	9.3	0.002	70	2	1	26	25	6760	1.06-08	+ ; -
10027	Benzeldehyde	+	16	16	10	Lis .	1 ; 1		1.5	0.43	0.3	9.002	70	2	1 2	26	2.5	8760	1 0E-06	-
P 271	Methylmethialene, 2-	5.41E+03	15	15	10	ES	+++		1.5	0.43	0.3	3 302	70	2	2	54	75	8760	1.0E-08	1
10634	Sigheryl, 1,1'-		15	15	10	1.5	1		15	0.43	0.3	0 002	70	2	2	26	2.5	8760	106-08	1
page-14	Acensphthylene	4.00E+02	18	16	10	L8	1 7 1		18	0.43	0.3	0 002	סל	2	2	26	2.5	8760	1 0€-08	1
1,000	Acensphthene		15	18	10	LS	11		15	0.43	0.3	0.005	70	2	2	26	2.5	8780	1 0E-04	1
132646	Dibenzofuran	1.79E+03	18	16	10	LĖ	11		1.6	0.43	0.5	0.002	70	2	2	26	2.5	8760	1 0E-08	
भरेग	Fluorene	1	15	18	10	L8	1		1.5	0.43	0.3	0.002	70	5	2	26	2.5	8780	1.06-06	+
14041	Phenantivene	3.66E+04	15	16	10	LB	11		1.5	0.43	0.3	0.002	70	2	2	26	25	8760 6750	1 0E-08	
170127	Anthrecene	9.63E-04	 	 	10	18	+++		18	0.43	0.3	0.002	70	2	2	26	25	6760	1.06-08	
01-01	C5-C8 Allohatica C9-C12 Allohatica	6.11E404	16	15	10	LS	+++		13	0.43	03	0.002	70			26	2.5	8780	1.06-08	+ ;
GE-C13	C9-C10 Aromatics	4.316+08	18	 - ii	10	(8	+ ; +		1.5	0.43	0.3	5.002	70	2	2	26	2.5	8780	7.0E-06	
04-014	C9-C18 Alphatics	9.28E+06	16	16	10	LŠ	1 7 1		1.5	0.43	03	0.002	70	- 2	- 2	78	25	8760	1.02-06	+
CIICE	C11-C22 Arematica	9.24E+06	15	15	10	LS	+	-	1.6	0.43	0.3	0.002	70	2	3	26	2.5	8780	1 DE-06	

Appendix C.4
Johnson & Ettinger Model - Data Entry Screen
inhalation of Volatiles from Soil
Future Child Recreational Scenario - CT
Southwest Prperties, Wells G&H Superfund Site, Operable Unit 2
Whitney Barrel

Chemical CAS No. (numbers only, no dashes)	Chemical	Diffusivity in air, C (cm²/s)	Diffusivity in water, D _w (cm ² /s)	Henry's law constant at reference temperature, H (atm-m³/mol)	Henry's law constant reference temperature, T _R (°C)	Enthalpy of vaporization at the normal boiling point, $\Delta H_{v,b}$ (cal/mol)	Normal bolling point, T _B (°K)	Critical temperature, T _C (°K)	Organic carbon partition coefficient, K _{oc} (cm ³ /g)	Pure component water solubility, S (mg/L)	Unit risk factor, URF (µg/m³) ⁻¹	Reference conc., RfC (mg/m³)	Physical state at soil temperature, (S,L,G)
1.0 000.007		******	.,,							<u> </u>			
95636	Trimethylbenzene, 1,2,4-	7.80E-02	9.03E-06	5.70E-03	25	1.25E+03	442.30	649.11	3.72E+03	5.70E+01	N/A	6.0E-03	
540590	Dichloroethylene, 1,2- (total)	5.59E-02	6.47E-06	4,30E-04	20	1.32E+03	585.00	877.50	1,28E+02	1.30E+00	#N/A	#N/A	0.0E+00
108678	Trimethylbenzene, 1,3,5-	6.48E-02	7.86E-06	7.81E-03	25	1.25E+03	442.30	649.11	1.67E+03	2.00E+01	N/A	6.0E-03	L
104518	n-Butylbenzene	7.25E-02	B,39E-06	1.25E-02	25	1,23E+03	456.00	684,00	2.51E+03	1,26E+00	#N/A	#N/A	
91203	Naphthalene	5.90E-02	7.50E-06	4.83E-04	25	1.04E+04	491.14	748.40	2.00E+03	3.10E+01	N/A	3.0E-03	s
99876	Isopropyltoluene, 4-	7.25E-02	6.39E-06	8.60E+00	25	1.24E+03	450.10	652.04	1.58E+03	2.34E+01	N/A	4.0E-01	<u>-</u>
135988	Butylbenzene, sec-	8.00E-02	8.00E-06	1.67E-02	25	1.24E+03	446.65	669,98	3,11E+04	1,76E+01	#N/A	#N/A	0.0E+00
74873	Chloromethane	1.26E-01	6.50E-06	8.67E-03	25	1.35E+03	249.00	373.50	1.43E+01	5.32E+03	N/A	9.08-02	0.0E+00
75014	Vinyl chloride	1.06E-01	1.23E-05	2.71E-02	25	5.25E+03	259,25	432.00	1.86E+01	2.76E+03	8.8E-06	1.0E-01	1
74839	Bromomethane	7.28E-02	1.21E-05	6.22E-03	25	5.49E+03	276.50	414.75	1,43E+01	1,52E+04	N/A	5.0E-03	0.0E+00
75003	Ethyl Chloride	1.26E-01	6.50E-06	8.67E-03	25	1.36E+03	249.00	373.50	1,43E+01	5.32E+03	N/A	1.0E+01	L
75354	1,1-Dichloroethylene	9.00E-02	1.04E-05	2.61E-02	25	6,25E+03	304.75	576.05	5.89E+01	2.25E+03	N/A	2.0E-01	
76131	Trichloro-1,2,2-trifiouroethane,	2.88E-02	8.07E-06	5.17E-01	25	1.33E+03	320.70	481.05	2.25E+02	2.202.700	N/A	3.0E+01	0.0E+00
76131		2.006-02	0.072400	3.17E-01	20	1.332403	320.70	481.03	2.201.02	1.70E+02	1975	3.02.01	0.02.00
67641	1,1,2- Acetone	1.24E-01	1.14E-05	3.88E-05	25	6.96E+03	329.20	50B.10	5.75E-01	1,00E+06	N/A	N/A	
75150	Carbon Disulfide	1.04E-01	1.14E-05	1.27E-02	25	6.39E+03	319,00	552.00	5.14E+01	2.67E+03	N/A	7.0E-01	
79209	Methyl Acetate	1.04E-01	1.00E-05	1.13E-04	25	1,31E+03	365.00	547.50	3.32E+00	2.43E+05	#N/A	#N/A	0.0E+00
75092		1.04E-01	1.17E-05	2.19E-03	25	6.71E+03	313.00	510.00	1.17E+01	1.30E+04	4.7E-07	3.0E+00	- 0.0L100
156605	Methylene chloride	7.07E-02	1.17E-05	9,39E-03	25	1.33E+03	320.85	516.50	5.25E+01	6.30E+03	N/A	2.0E-01	
	trans-1,2-Dichloroethylene				25		328.36	497.11	3.84E+01	5.10E+04	N/A	3.0E+00	
1634044	Methyl-Tertiary-Butyl Ether	1.02E-01	1.05E-05	5.87E-04		1.32E+03			3.16E+01	5.06E+03	N/A	5.0E-01	
75343	1,1-Dichloroethane	7.42E-02	1.05E-05	5.61E-03	25	6.90E+03	330.55	523.00	3.55E+01	3.50E+03	N/A	2.0E-01	-
156592	cis-1,2-Dichloroethylene	7.36E-02	1.13E-05	4.07E-03	25	7.19E+03	333.65	544.00			N/A		0.0E+00
78933	Butanone, 2- (MEK)	8.08E-02	9.80E-06	5.60E-05	25	1.31E+03	352.50	528.75	3,83E+00	2.23E+05 1.33E+03	N/A	N/A 2.2E+00	0.0E+00
71556	1,1,1-Trichloroethane	7.80E-02	8.80E-06	1.72E-02	25	7.14E+03	347.24	545.00	1.10E+02				205.00
110827	Cyclohexane	8.00E-02	9.002-08	2.00E+00	25	1.31E+03	353.85	530.78	1.60E+02	5.50E+01	#N/A	#N/A	0.0E+00
71432	Benzene	8.80E-02	9.80E-06	5.56E-03	25	7,34E+03	353.24	562.16	5,89E+01	1.75E+03	7.8E-06	3.0E-02	
79016	Trichloroethylene	7.90E-02	9.10E-06	1.03E-02	25	7.51E+03	360.36	544.20	1,66E+02	1.10E+03	1.1E-04	4.0E-02	
108872	Methyl cyclohexane	9.86E-02	8.52E-06	4.23E-01	25	1,30E+03	373.90	560.85	2.68E+02	1.40E+01	N/A	3.0E+00	
108883	Toluene	8.70E-02	8.60E-06	6,63E-03	25	7.93E+03	383,78	591.79	1.82E+02	5.26E+02	N/A	4.0E-01	
127184	Tetrachloroethylene	7.20E-02	8.20E-06	1.84E-02	25	8.29E+03	394,40	620.20	1.55E+02	2.00E+02	5.9E-06	N/A	L L
108907	Chlorobenzene	7.30E-02	8.70E-06	3.71E-03	25	8.41E+03	404.87	632,40	2.19E+02	4.72E+02	N/A	6.0E-02	
100414	Ethylbenzene	7.50E-02	7.80E-06	7.88E-03	25	8.50E+03	409.34	617.20	3.63E+02	1.69E+02	N/A	1.0E+00	<u></u>
1330207	Xylenes	7.69E-02	8,44E-06	6.73E-06	25	1.26E+03	417.40	616.21	2.41E+02	2.20E+02	N/A	1.0E-01	ļ <u>-</u>
100425	Styrene	7.10E-02	8.00E-06	2,76E-03	25	8.74E+03	418.31	636.00	7.76E+02	3.10E+02	#N/A	#N/A	ļ
98828	Isopropylbenzene	6.50E-02	7.83E-06	1.47E-02	25	1.26E+03	425.40	631.01	9.31E+03	5.60E+01	N/A	4.0E-01	L L
79345		7.10E-02	7.90E-06	3.44E-04	25	9.00€+03	419.60	661,15	9.33E+01	2.97E+03	#N/A	#N/A	<u> </u>
541731	Dichlorobenzene, 1,3-	4.14E-02	B.85E-06	4.70E-03	25	1.24E+03	446.00	683.96	1.70E+02	6.88E+01	N/A	N/A	
106467	1,4-Dichlorobenzene	6.90E-02	7.90E-06	2.43E-03	25	9.27E+03	447.21	684.75	6.17E+02	7.38E+01	N/A	8.0E-01	s
95501	1,2-Dichlorobenzene	6.88E-02	9.41E-06	1.62E-06	25	9.70E+03	465.00	697.50	5.34E+01	2.77E+04	N/A	N/A	\$
120821	1,2,4-Trichlorobenzene	3.00E-02	8.23E-06	1.42E-03	.25	1.05E+04	486.15	725.00	1.78E+03	3.00E+02	N/A	2.0E-01	205.00
100527	Benzaldehyde	7.30E-02	9.07E-06	2.62E-05	25	1.24E+03	452.00	678.00	3.27E+01	6.57E+03	#N/A	#N/A	0.0E+00
91576	Methylnaphthalene, 2-	4.64E-02	7,75E-06	1.01E-03	25	1.17E+03	514.05	761.01	B.51E+03	2.46E+01	N/A	3.0E-03	S
92524	Biphenyl, 1,1'-	4.04E-02	8.15E-06	3.03E-04	25	1,15E+03	529.10	793.65	6.25E+03	6.94E+00	N/A	N/A	0.0E+00
208968	Acenaphthylene	4.43E-02	7.44E-06	2.80E-04	25	1.12E+03	553.00	792.01	4.79E+03	3.93E+00	N/A	3.0E-03	S
83329	Acenaphthene	4.21E-02	7.69E-06	1.55E-04	25	1.22E+04	550.54	803.15	7.08E+03	4.24E+00	N/A	3.0E-03	S
132649	Dibenzofuran	2.67E-02	5.93E-08	4.00E-03	25	1.11E+03	559.00	824.01	B.13E+03	1.00E+01	N/A	N/A	s
86737	Fluorene	3.63E-02	7.88E-08	9.41E-08	25	1.27E+04	570.44	870.00	7.71E+03	1.90E+00	N/A	3.0E-03	S
85018	Phenanthrene	3,30E-02	7.47E-06	1.30E-04	25	1.06E+03	613.00	869.01	1.41E+04	1.28E+00	N/A	3.0E-03	S
120127	Anthracene	3.24E-02	7.74E-08	6.51E-05	25	1.31E+04	615.18	873,00	2.95E+04	4.34E-02	N/A	3.0E-03	S
C5-C8	C5-C8 Aliphatics	6.00E-02	1.00E-05	1.30E+00	25	NA NA	NA.	NA .	2.27E+03	1.10E+04	N/A	2.0E-01	S
C9-C12		6.00E-02	1,00E-05	1.56E+00	25	NA NA	NA.	NA	1.50E+05	7.00E+01	N/A	2.0E-01	S
C9-C10		6.00E-02	1.00E-05	7.92E-03	25	NA	NA NA	NA	1.78E+03	5.10E+04	N/A	5.0E-02	S
C9-C18	C9-C18 Aliphatics	6.00E-02	1.00E-05	1.66E+00	25	NA NA	NA	NA	6.80E+05	1.00E+01	N/A	2.0E-01	S
C11-C22	C11-C22 Aromatics	6.00E-02	1.00E-05	7.32E-04	25	NA	NA	NA	5.00E+03	5.80E+03	N/A	5.0E-02	S

Appendix C.4
Johnson & Ettinger Model - Dista Entry Screen
Inhalation of Votalities from Soli
Future Child Recreational Scenario - CT
Southwest Prparties, Wells G&H Superfund Ske, Operable Unit 2
Whitney Berrel

		Source- building separation.	eoil air-filled porosity,	effective total fluid saturation.	Vadose zone apil intrinsic permeability.	Vadose zone soli relative air permeability,	Vadose zone soil effective vapor permeability.	Floor- well seam perimeter,	Initial soil concentration	Bidg. ventitation	enclosed space below	Crack- lo-total area	Crack depth below	Enthalpy of reportzellon a eve. soil	ave. soil	Henry's law constant at ave, soil	Vapor viscosity at ave. soil	zone effective diffusion
(numbers only.		LT	9.V	8.	parmenty,	k _m	рентиварику,	Xcrack	used, CR	rale,	grade.	retio,	grade,	temperalure,		lemperature,	lemperature.	coefficient,
no dashes)	Chemical	(cm)	(cm³/cm³)	(cm³/cm³)	(cm²)	(cm²)	(cm²)	(cm)	(μg/kg)	(போ ³ /த)	A _e (cm²)	η (unitiess)	Z (cm)	∆H _{v,Tg} (cal/mol)	H _{rit} (atm-m³/mol)	HTS (unitless)	μ _{τσ}	D ^{aB} v (cm²/a)
			•			(,,	(GIII)	(1-B-1-S)		(See)	[uniness)	(CHI)	(Calzinoi)	fertiles missi	[numens)	(g/cm-s)	(cm /a)
95636	Trimethylbenzene, 1,2,4-	1	0.130	0.859	1.62E-08	0,390	8.33E-09	1,72E+04	4.36E+05	2.52E+06	9 50E+08	1.30E-04	15	1.55E+03	4.96E-03	2.13E-01	1 75E-04	4.77E-04
540590	Oichloroethylene, 1,2- (Iotal)	1	0.130	0.659	1.62E-08	0.390	6 33E-09	1.72E+04	5.96E+02	2.52E+08	9 50E+08	1,30E-04	15	1.73E+03	3.87E-04	1.67E-02	1 75E-04	3.77E-04
108678 104518	Trimethylbenzene, 1,3,5-	1	0.130	0.659	1.62E-08	0.390	6.33E-09	1 72E+04	7.13E+04	2.52E+08	9 50E+06	1.30E-04	15	1.55E+03	6.80E-03	2.93E-01	1 75E-04	3.95E-04
91203	n-Butylbanzene Naphthalene	 	0.130	0.659	1.62E-08	0.360	8 33E-09	1 72E+04	6.63E+03	2.52E+06	9 50E+08	1.30E-04	15	1 53E+03	1,09E-02	4.09E-01	1 75E-04	4 41E-04
99878	Isopropylloluene, 4-	1	0.130	0.859	1.62E-08	0.390	8.33E+09	1.72E+04	2.74E+03	2.52E+06	9.50E+06	1.30E-04	15	1.28E+04	1.52E-04	6.55E-03	1 75E-04	4.70E-04
135988	Bulyibenzene, sec-	 	0.130	0.659	1.62E-08	0.390	6.33E-09 6.33E-09	1.72E+04 1.72E+04	7.31E+06 1.10E+08	2.52E+06	9.50E+06	1,30E-04	15	1 57E+03	7.48E+00	3.22E+02	1 75E-04	4.39E-04
74873	Chloromethane	1	0.130	0.659	1.62E-08	0.390	6.33E-09	1.72E+04	2.49E+02	2.52E+06 2.52E+06	9.50E+05 9.50E+06	1.30E-04 1.30E-04	15	1.53E+03	1.46E-02	6.27E-01	1 75E-04	4 66E-04
75014	Vinyl chloride	1 1	0.130	0.659	1.62E-08	0.390	6.33E-09	1.72E+04	2.61E+02	2.52E+08	9.50E+05	1.30E-04	15 15	1.20E+03 5.00E+03	7.79E-03 1.73E-02	3.35E-01 7.46E-01	1.75E-04 1.75E-04	7.68E-04 6.44E-04
74639	Bromomethane	1	0.130	0.669	1.62E-08	0.390	6.33E-09	1.72E+04	3.69E+08	2.52E+06	9.50E+06	1.30E-04	15	5.39E+03	3 B4E 03	1.65E-01	1.75E-04	4 48E-04
	Ethyl Chloride	1	0.130	0.659	1.62E-08	0.390	6.33E-09	1.72E+04	8 60E+01	2.52E+06	9.50E+08	1.30E-04	15	1.20E+03	7.78E-03	3.35E-01	1.75E-04	7.88E-04
75354	1,1-Dichioroethylene	1	0.130	0.659	1.62E-08	0.390	6.33E-09	1.72E+04	6 34E+01	2.52E+06	9.50E+06	1.30E-04	15	6.39E+03	1.47E-02	6.34E-01	1.75E-04	5 47F-04
76131 67641	Trichloro-1,2,2-triflouroethans, 1,1,2-	1	0 130	0.659	1 d2E-08	0,390	6.33E-09	1.72E+04	3 99E+05	2 52E+06	9.50E+08	1.30E-04	15	1.44E+03	4.55E-01	1 98E+01	1.75E-04	1 75E-04
75150	Carbon Disuttide	1	0.130	0.659	1.62E-08	0.390	5.33E-09	1.72E+04	3 24E+02	2.52E+06	9.50E+06	1.30E-04	15	7.56E+03	1.97E-05	8.50E-04	1.75E-04	2.07E-03
	Methyl Acetale		0.130	0.659	1.62E-06 1.62E-08	0.390	6.33E-00	1.72E+04	8 78E+05	2.52E+08	9.50E+08	1.30E-04	15	6.68E+03	6.99E-03	3.01E-01	1.75E-04	6.34E-04
75092	Methylene chloride	 	0.130	0.659	1.82E-08	0.390	5.33E-09	1.72E+04	5.03E+07	2.52E+06	9.50E+06	1.30E-04	15	1.50E+03	9.88E-05	4.25E-03	1.75E-04	5.61E-04
158806	Irans-1,2-Dichloroethylene	1 1	0.130	0.659	1.826-08	0.390	5.33E-09 6.33E-09	1.72E+04 1.72E+04	7.27E+02 7.73E+01	2.52E+06 2.52E+06	9.50E+06 9.60E+08	1.30E-04	15	7.03E+03	1,17E-03	5.03E-02	1.75E-04	6.35E-04
1634044	Methyl-Tertrary-Butyl Ether	1	0.130	0.659	1.62E-08	0.390	5.33E-09	1.72E+04	5.75E+01	2.52E+06	9.50E+06	1,30E-04 1,30E-04	15 15	1.42E+03 1.45E+03	8.27E-03 5.16E-04	3.56E-01 2.22E-02	1.75E-04	4.32E-04
75343	1,1-Dichlorosthane	1	0.130	0.659	1.62E-08	0.390	6.33E-08	1.72E+04	3.58E+02	2 52E+06	9.50E+08	1.30E-04	15	7.45E+03	2.88E-03	1.24E-01	1.75E-04 1.75E-04	6.67E-04 4.58E-04
156592	cls-1,2-Dichloroethylune	1	0,130	0.859	1.B2E-06	0.390	6.33E-09	1.72E+04	1 80E+02	2.52E+08	9.50E+08	1.30E-04	15	7,73E+03	2.04E-03	8.77E-02	1.75E-04	4.59E-04
78933	Butanone, 2- (MEK)	1	0.130	0.659	1.626-08	0.390	6.33E-09	1.72E+04	4.83E+07	2.5ZE+06	9.50E+06	1.30E-04	15	1.49E+03	4.90E-05	2.11E-03	1.75E-04	9.45E-04
71556	1.1.1-Trichloroethane	1 1	0.130	0.659	1.62E-08	0.390	6,33E-09	1,72E+04	6.01E+06	2 52E+06	9.50E+06	.1.30E-04	15	7.88E+03	8.50E-03	3.86E-01	1.75E+04	4.75E-04
110827 714J2	Cyclohexane Benzene	- !	0.130	0 659	1,62E-08	0.390	6.33E-08	1.72E+04	3.68E+05	2.52€+06	9.50E+06	1.30E-04	16	1.49E+03	1.75E+00	7 54E+01	1.75E-04	4.85E-04
79016	Trichloroethylene	1 1	0.130	0.659	1,62E-08	0.390	6.33E-09	1.72E+04	8.08E+01	2 52E+08	9.50E+08	1.30E-04	15	8.12E+03	2.69E-03	1.16E-01	1.75E-04	5 42E-04
108872	Methyl cyclohexane	 	0,130 0,130	0.659	1.52E-08	0.390	6.33E-08	1 72E+04	2.91E+02	2.52E+06	9.50E+08	1.30€-04	15	8.56E+03	4,79E-03	2.08E-01	1.75E-04	4.836-04
	Toluene	 	0.130	0.659	1.62E-08	0.390	6.33E-00	1.72E+04	4.45E+02	2.52E+06	9.50E+08	1.30€-04	15	1.51E+03	3.70E-01	1.58E+01	1.75E-04	5.98E-04
127184	Tetrachioroethylene	 	0.130	0.659	1.62E-08	0.390	6.33E-09 6.33E-09	1.72E+04 1.72E+04	5.85E+02 1.47E+02	2.52E+06 2.52E+06	9.50E+06 9.50E+06	1.30E-04 1.30E-04	15	9.15E+03	2.92E-03	1,26E-01	1.75E-04	5.34E-04
108907	Chlorobenzene	1	0.138	0.659	1.62E-08	0.390	6,33E-09	1.72E+04	3.11E+02	2 52E+00	9.50E+05	1.30E-04	15	9.55E+03 9.80E+03	7.83E-03 1.54E-03	3.37E-01	1.75E-04	4.39E-04
	Ethylbenzene	1 1	0.130	0.659	1.62E-08	0.390	6,33E-09	1.72E+04	1.64E+02	2 52E+06	9.50E+06	1.30E-04	15	1.02E+04	3.18E-03	5.65E-02 1.37E-01	1.75E+04 1.75E+04	4.55E-04 4.60E-04
	Xylenes	1	0.130	0.659	1.52E-08	0.390	6.33E-09	1.72E+04	1,50E+05	2.52E+06	9.50E+08	1.30€-04	15	1.54E+03	5.88E-08	2:52E-04	1.75E-04	3.75F-03
	Styrene		0.130	0.859	1.62E-06	0.390	6.33E-09	1.72E+04	5.44E+05	2.52E+08	9.50E+08	1.30€-04	15	1.05E+04	1.06E-03	4.67E-02	1.75E-04	4 476-04
	Isopropylbenzene	1	0.130	0.859	1.62E-08	0.390	6.33E-09	1.72E+04	1.086+08	2.52E+06	9.50E+08	1.30E-04	15	1,54E+03	1.26E-02	5.51E-01	1.75E-04	3.95E-04
	1,1,2,2-Tetrachioroethane	1	0.130	0,659	1.62E-08	0.390	6.33E-09	1.72E+04	1.15E+08	2.52E+06	9.50E+08	1.30E-04	15	1.05E+04	1.34E-04	5.77E-03	1.75E-04	5.65E-04
	Dichlorobengene, 1,3- 1,4-Dichlorobengene	1 1	0.130	0.859	1.62E-08	0.390	6.33E-09	1.72E+04	1.00E+02	2 52E+06	9 50E+06	1.30E-04	15	1.50E+03	4 11E-03	1.77E-01	1,75E-04	2.56E-04
	1,2-Dichlorobenzene	 	0.130	0.859 0.859	1.62E-08	0.390	6.33E-09	1.72E+04	2.50E+02	2 52E+05	9.50E+06	1.30E-04	. 15	1.12E+04	8 89E-04	3.83E-02	1.75E-04	4.38E-04
	1,2,4-Trichlorobenzene	 	0.130	0.658	1.62E-08	0.390	6.33E-09 6.33E-09	1.72E+04 1.72E+04	5.10E+01 1.13E+06	2.52E+06	9.50E+06	1.30E-04	15	1,21E+04	5.51E-07	2.37E-05	1.75E-04	3,94E-02
	Benzaldehyda	 	0.130	0.659	1,62E-08	0.390	8.33E-09	1.72E+04	1.74E+05	2.52E+06	9.50E+06 9.50E+06	1.30E-04	15 15	1.32E+04	4.35E-04	1.87E-02	1.75E-04	2.26E-04
91576	Methylnaphthalana, 2-	i i	0.130	0.659	1.62E-08	0.390	8.33E-09	1.72E+04	5.41E+03	2.52E+06	9.50E+08	1.30E-04 1.30E-04	15	1.53E+03 1.51E+03	2.29E-05 0.08E-04	9.84E-04 3.81E-02	1.75E-04 1.75E-04	1.35E-03 3.13E-04
	Biphenyi, 1,1'-	1	0.130	0.650	1.62E-08	0.390	6.33E-09	1.72E+04	8.61E+04	2,52E+08	9.50E+08	1.30E-04	15	1.47E+03	2.68E-04	1.14E-02	1.75E-04	3.13E-04 3.15E-04
	Acenaphihylene	1	5,130	0.659	1.625-08	0.390	6.33E-09	1.72E+04	4.00E+02	2.52E+08	9.50E+05	1.30E-04	15	1.51E+03	Z 45E-04	1.05E-02	1.75E-04	3.39E-04
	Acensphthene	1	0.130	0.669	1.62E-08	0.390	6.33E-09	1 72E+04	6.09E+04	2.52€+08	9 50€+08	1.30E-04	15	1.81E+04	3 67E-05	1.58E-03	1,75E-04	7.33E-04
	Oibenzoluren	1	0.130	0.659	1.62E-06	0.390	6 335-08	1.77E+04	1.79E+03	2.52E+06	9.50E+08	1 30E-04	15	1.47E+03	3.61E-03	1.51E-01	1.75E-04	1.66E-04
	Fluorene	1 1	0.130	0.659	1 62E-08	0,390	6.33E-09	1.72E+04	2.97E+04	2,52E+06	9.50E+06	1.30E-04	15	1.62E+04	2,20E-08	9.48E-07	1.75E-04	8.18E-01
	Phenanthrene Anthracene		0.130	0.659	1.62E-08	0.390	8,33E-09	1.72E+04	3.64E+04	2.52E+08	9.50E+08	1.30E-04	15	1.48E+03	1.14E-04	4.90E-03	1.75E-04	3.50E-04
	C5-C8 Aliphatics	 } 	0.130	0.659	1.62E-08 1.62E-08	0.390	8,33E-09	1.72E+04	2.576,+03	2.52E+06	9,50E+08	1.30E-04	15	1.84E+04	1.20E-05	5.43E-04	1,75E-04	1.60E-03
	C9-C12 Aliphalics	1	0.130	D 659	1.62E-08	0.390	6.33E-09	1.72E+04 1.72E+04	9.83E+04 6.11E+04	2.5ZE+08	9,50E+06	1.30E-04	15	. NA	6.48E-01	2.79E+01	1,75E-04	3.64E-04
	C9-C10 Aromatics	- 	0.130	0.659	1.626-08	0.390	6.33E-09	1.725+04	4,31E+05	2.52E+08 2.52E+08	9.50E+08	1.30E-04	15	. NA	7.80€-01	3.36E+01	1.75E-04	3.64E-04
	C9-C16 Allphatics	1	0.130	0.659	1.82E-08	0.390	6.33E-09	1.72E+04	9.256+05	2.52E+06	9.50E+08	1.30E-04 1.30E-04	15	NA NA	3.96E-03	1.70E-01	1.75E-04	3 69€-04
	C11-C22 Aromatics		0.130	0,659	1.82E-08	0.300	6,33E-09	1.725+04	9.24E+05		9.60E+06	1.30E-04 1.30E-04	15	NA NA	0.28E-01 3.60E-04	3,56E+01 1,56E+02	1.76E-04 1.76E-04	3.64E-04 4.27E-04

Appendix C.4
Johnson & Ellinger Model - Data Enliry Screen
Inhaletion of Volaties from Soil
Future Child Recreational Scenario - CT
Southweel Preview, Wells G&H Superfund Sits, Operable
Whitney Barrel

Chemical CAS No.		Diffusion path length.	Convection path length.	Soll-water partition coefficient.	Source vapor conc.	Crack radius,	Average vapor flow rate into bidg.	Crack effective diffusion coefficient.	Area of orack.	Exponent of equivalent foundation Peciet number.	Infinite source indoor attenuation coefficient.	Infinite source bldg. conc.	Unit risk factor.	Reference
(numbers only.		L.	۱,	K,	Caucos	r _{oneck}		D	Auset	exp(Pef)	Œ	Course	URF	RfC
no dashes)	Chemical	(cm)	(cm)	(cm³/g)	(ug/m³)	(cm)	(cm³/s)	(cm²/s)	(cm²)	(unitless)	(unitleas)	(µg/m³)	(µg/m³).5	(mg/m³)
In case the same of														
95636 540590	Trimelhylbenzene, 1,2,4- Dichloroethylene, 1,2- (total)	1	15	7.43E+00	N/A	0.10	2.74E+01	4.77E-04	1.23E+03	2.75E+303	1.08E-05	N/A	N/A	6.0E-03
108878	Trimel hybenzene, 1,3-(100a)		15 15	2.57E-01 3.34E+00	N/A N/A	0.10 0.10	2.74E+01 2.74E+01	3.77E-04	1.23E+03	#NUM	1.08E-05	N/A	#N/A	#N/A
104518	n-Bulyibenzene		15	5.02E+00	N/A	0.10	2.74E+01	3.95E-04 4.41E-04	1.23E+03 1.23E+03	*NUMI	1.08E-05 1.08E-05	N/A	N/A	6.0E-03
91203	Naphihalene	- i	15	4.00E+00	4.27E+03	0.10	2.74E+01	4.70E-04	1.23E+03	9.67E+307	1.08E-05	4.61E-02	N/A	3.0E-03
99876	Isopropyltoluene, 4-	1	15	3.18E+00	N/A	0.10	2.74E+01	4.39E-04	1,23E+03	#NUM	1.08E-06	N/A	N/A	4.0E-01
135988	Bulylbenzene, sec-	1	15	8.22E+01	N/A	0.10	2.74E+01	4.86E-04	1.23E+03	5.47E+297	1.08E-05	N/A	#N/A	#N/A
74873	Chloromelhane	1	15	2.86E-02	3.24E+05	0.10	2.74E+01	7.68E-04	1.23E+03	1.14E+189	1.08E-05	3.51E+00	N/A	9.0E-02
75014	Vinyl chloride	1	15	3.72E-02	6.48E+05	0.10	2,74E+01	8 44E-04	1.23E+03	5.27E+224	1.08E-05	6,89E+00	8.8E-06	1.0E-01
74839 75003	Bromomethane		15	2.86E-02	N/A	0.10	2.74E+01	4.48E-04	1.23E+03	*NUMI	1.08€-06	N/A	N/A	5.0E-03
76354	Ethyl Chloride		15	2.86E-02	1.12E+06	0.10	2.74E+01	7.66E-04	1.23E+03	1.14E+189	1.08E-05	1,21E+00	N/A	1.0E+01
78131	1,1-Dichloroethylene Trichloro-1,2,2-triflouroethane, 1,1,2-	1	15 16	1.18E-01 4.60E-01	1.08E+05 N/A	0.10	2.74E+01 2.74E+01	5,47E-04	1 23E+03	3.62E+264	1.086-05	1.17E+00	N/A	2.0E-01
67641	Acetone		16	1,15E-03	1.37E+03	0.10	2.74E+01	1.75E-04 2.07E-03	1 23E+03 1 23E+03	#NUMI 9.18É+69	1.07E-05 1.09E-05	N/A 1.48E-02	N/A N/A	3.0E+01
75150	Carbon Disulfide	1	16	1.03E-01	N/A	0.10	2.74E+01	6.34E-04	1.23E+03	1,25E+228	1.08E-06	1,46E-02	N/A	7.0E-01
79209	Methyl Acelete	1	15	6.64E-03	N/A	0.10	2.74E+01	8.81E-04	1.23E+03	1.17E+168	1.08E-06	N/A	#N/A	#N/A
75092	Methylene chloride	. 1	15	2.34E-02	1.60E+05	0.10	2.74E+01	6.35E-04	1.23E+03	8.55E+227	1.08E-05	1,73E+00	4.7E-07	3.0E+00
158805	trans-1,2-Dichloroethylene	1	15	1.05E-01	8.20E+04	0.10	2.74E+01	4.32E-04	1.23E+03	#NUM	1,08E-05	8.856-01	N/A	2.0€-01
1634044	Methyl-Terliary-Bulyl Ether	1	16	7.68E-02	4.58E+03	0.10	2.74E+01	5,87E-04	1.23E+03	9.48E+216	1.08E+05	4.96E-02	N/A	3.0£+00
75343	1,1-Dichloroethane	1	15	6.32E-02	1.82E+05	0.10	2.74E+01	4.58E-04	1.23E+03_	#NUMI	1.08E-05	1.75E+00	N/A	5.0E-01
156592	cis-1,2-Dichloroethylene	. 1	15	7.10E-02	5.86E+04	0.10	2.74E+01	4,59E-04	1.23E+03	#NUMI	1.085-05	6.12E-01	N/A	2.0E-01
78933	Butanone, 2- (MEK)	1	16	7.66E-03	N/A	0.10	2.74E+01	8.45E-04	1.23E+03	1.18E+153	1.08E-05	N/A	N/A	N/A
71556 110627	1,1,1-Trichloroethane		16	2.20E-01	N/A	0.10	2.74E+01	4.75E-04	1.23E+03	4.30E+304	1.08E-05	N/A	N/A	2.2E+00
71432	Cyclohexane Benzene		15	3.20E-01 1.18E-01	N/A	0.10	2.74E+01	4.85E-04	1.23E+03	3.16E+298	1,08E-05	N/A	#N/A	#N/A
79016	Trichloroethylene	- ;	15	3.32E-01	2.65E+04 1.09E+05	0.10	2.74E+01 2.74E+01	5.42E-04 4.83E-04	1.23E+03 1.23E+03	1.61E+267 3.77E+299	1.08E-05	3.086-01	7.8E-06	3.0E-02
108872	Methyl cyclohexane	1	15	5.36E-01	3.35E+08	0.10	2.74E+01	5.68E-04	1.23E+03 1.23E+03	3.77E+299 1.50E+242	1.08E-05 1.08E-05	1,18E+00 3,62E+01	1.1E-04 N/A	4.0E-02
108883	Toluene		15	3.84E-01	1.28E+05	0.10	2.74E+01	5.34E-04	1.23E+03	1.10E+271	1.08E-05	1.39E+00	N/A	4.0E-01
127184	Tetrachioroethylene	1	15	3.10E-01	9.19E+04	0.10	2.74E+01	4.39E-04	1.23E+03	#NUMI	1.08E-06	9.92E-01	5.9E-06	N/A
108907	Chiorobenzene	1	15	4.38E-01	3.21E+04	0.10	2.74E+01	4.65E-04	1.23E+03	#NUMI	1.08E+05	3.48E-01	N/A	6.0E-02
100414	Elhylbenzene	1	15	7.26E-01	2.88E+04	0.10	2.74E+01	4.60E-04	1.23E+03	#NUMI	1.08E-05	2.90E-01	N/A	1.0E+00
1330207	Xylenes	1	16	4.82E-01	N/A	0.10	2.74E+01	3.75E-03	1.23E+03	4.03E+38	1,09E+05	N/A	N/A	1.0E-01
100425	Slyrene	1	15	1.55E+00	N/A	0.10	2.74E+01	4.47E-04	1.23E+03	#NUM!	7.08E-05	N/A	IIN/A	#N/A
98828 79346	laopropylbenzene_	1	15	1.86E+01	N/A	0.10	2.74E+01	3.95E-04	1.23E+03	MUM#	1.08E-05	N/A	N/A	4.0E-01
641731	1,1,2,2-Tetrachtoroethane Dichlorobenzene, 1,3-		15	1.87E-01	N/A	0.10	2.74E+01	5.65E-04	1.23E+03	1.98E+258	1.08E-05	N/A	#N/A	#N/A
108487	1,4-Dichlorobenzene		15	3.40E-01 1.23E+00	3.19E+04 6.66E+03	0.10	2.74E+01 2.74E+01	2,68E-04	1.23E+03	#NUMI	1.07E-05	3.42E-01	N/A	N/A
95501	1,2-Dichtorobenzene		15	1.07E-01	3.94E+00	0.10	2.74E+01 2.74E+01	4,38E-04 3,94E-02	1.23E+03	#NUMI 4.74E+03	1,08E-05 1,09E-05	7.19E-02 4.28E-05	N/A	B.OE-01
120821	1,2,4-Trichlorobenzene	1	15	3.56E+00	N/A	0.10	2.74E+01	2.25F-04	1.23E+03 1.23E+03	4NUM)	1.07E-05	4.28E-08	N/A	N/A 2.0E-01
100527	Benzaldehyde	1	15	6.54E-02	N/A	0.10	2.74E+01	1.35E-03	1.23E+03	2.60E+107	1.086-05	N/A	#N/A	#N/A
91578	Methylnaphthaiene, 2-	1	15	1.70E+01	1.20E+04	0.10	2.74E+01	3,13E-04	1,23E+03	#NUMI	1.08E-05	1,29E-01	N/A	3.0E-03
92524	Biphenyl, 1,1'-	1	15	1.25E+01	N/A	0.10	2,74E+01	3.15E-04	1.23E+03	#NUMI	1.08E-05	N/A	N/A	N/A
208968	Acenaphthylene	1	15	9.57E+00	4.31E+02	0,10	2.74E+01	3.38E-04	1.23E+03	#NUMI	1.08E-06	4.64E-03	N/A	3.0E-03
63329	Acenephthene	1	15	1.42E+01	N/A	0.10	2.74E+01	7.33E-04	1.23E+03	2.13E+197	1.08E-05	N/A	N/A	3.0E-03
132649	Dibenzofuran	1	15	1.63E+01	1.64E+04	0.10	2.74E+01	1.56E-04	1 23E+03	#NUMI	1.07E-05	1.75E-01	N/A	N/A
66737	Fluorene		15	1.54E+01	N/A	0.10	2,74E+01	6,18E-01	1.23E+03	1.50E+00	3.24E-05	N/A	N/A	3.0E-63
85018	Phenanthrene		15	2.83E+01	6.27E+03	0.10	2.74E+01	3,50E-04	1.23E+03	#NUM)	1,08E-05	6.76E-02	N/A	3.0E-03
120127 C5-C8	Anthracene C5-C5 Aliphatics	- 1 -	15	5.90E+01	N/A	0.10	2.74E+01	1.80€-03	1.23E+03	5.14E+90	1.08E-05	N/A	N/A	3.0E-03
C9-C12	C9-C12 Aliphatics		15	4.53E+00 3.00E+02	3.54E+08 6.76E+08	0.10	2.74E+01	3.64E-04	1.23E+03	#NUMI	1.085-05	4.14E+03	N/A	2 OE-01
C9-C10	C9-C10 Aromatics	-	15	3.56E+00	1.96E+07	0.10	2,74E+01 2,74E+01	3.64E-04	1.23E+03	#NUMI	1.08E-05	7.29E+01 2.10E+02	N/A	2.0E-01
C9-C18	C9-C18 Aliohatics		15	1.38E+03	2.42E+07	0.10	2.74E+01	3.69E-04 3.64E-04	1.23E+03 1.23E+03	#NUMI	1.08E-05 1.08E-05		N/A N/A	5.0E-02 2.0E-01
C11-C22	C11-C22 Aromatics		15	1.00E+01	1.40E+08	0.10	2.74E+01	4.27E-04	1.23E+03 1.23E+03	#NUMI	1,08E-06	2.61E+02 1.51E+01	N/A	5.0E-02
	10.1.1		·	1.00(270)	L 1.40E*00	0.10	1 2.7-6-01 1	7.2/5-74	1 (25-403	Pia∆Wi	1,002-00	1.01E+01		_ 0.0E-02

RESULTS SHEET

Appendix C.4 Johnson & Ettinger Model - Diese Entry Screen Inheletion of Volatiles From Soil Future Child Recreational Scanierio - CT Ecustrevast Proesies, Walls G&H Superkund Site. Coverable Unit 2 Whitever Dennis

RISK-BASED SOIL CONCENTRATION CALCULATIONS:

INCREMENTAL RISK CALCULATIONS:

Indicor								Incremental	Hezard
Cubrical Cub No. Commission Cub Commission Cub Commission Cub Commission Cub			Indoor	Indoor	Risk-based		Final	risk from	quotent
Cubrical Cub No.			400004178	6000000FG	Indoor	Soil	indoor	Yapor	from Yepor
December Chemical Endos of	Chamical			act.	CODORATE	seturation	entropolities	intrusion to	Intrusion to
Committee only Committee				sond.	acil		soil	Indoor air.	Indoor eir,
### PROFESSE Chemical (ug/kg) (ug/kg									noncercinogen
### ### ### ### ### ### ### ### ### ##		Chambridge							
Description of the control of the	no degrees]	- Cindings	(pg rg)	/PV 19/	V-V-V/	Y 4.37			,
Description of the control of the		T		1		I A TATAOR I		N/A	NA.
Total									
10-518									
1972 Nachrhamma NA									
MA									
13.6965 Decimarisment SA									
14673 Chicorosthane								NA.	
1997 Very other/sis								NA.	2.9E-04
Page								1.36-08	
1990 The Churche The Chu									
1-1-Chebrored-views								NA.	9.0E-07
1983 Timbrone 1.2.2-Pillourosthone, 1.1.2- NA NA NA J. 9.09E-05 NA								NA.	
17841 Acatone NA									
179100 Control Gouldide									
1920								NA.	NA.
15982 Methylene chloride NA								NA.	NA NA
198805 term-1,2-Dehicroenhane NA NA NA 1,250-05 NA NA NA NA 1,250-05 NA NA NA NA NA 1,250-05 NA NA NA NA NA NA NA N								1.7E-10	4.JE-06
1543044			NA.	NA.	NA		NA.	NA.	3.1E-06
TSIA3								NA NA	1.2E-07
196902 Delianteroul/steroul NA					NA.			NA	2.6E-05
T8833 Bulances 2- (MEK) NA NA			NA.	NA.	NA.		N/A	NA.	2.3E-05
11927 Cockineman			NA.	NA.	NA.			····NA	NA NA
14-12	71556		NA	NA.	NA.	8,01E+05	NA.	NA.	
T1432	110827	Cycloherane	NA.	NA.	NA	3.88E+05	NA.	NA NA	
1939/72 Methyl continuaries NA	71432	Senzene	NA.	NA.	NA .	5,745+05	74		
198842 Toleron Toler	79016	Trichloroethylene	NA.	NA .	NA.	6,05E+05			
127.794 Teachsrooffsfelow NA	105872	Methyl cyclohexame	NA.	NA	HA	2.98E+04			
MA	108883	Toisene							
130207 Zeferson NA NA 1,05E-05 NA NA 1,05E-05 NA NA NA NA NA NA NA N	127184	Tetrachiorosthylene	NA.	NA .		1,08E+05			
1300007	108907	Chicrobenzane							
100425 Sherene		Ethylbonzone							
00.023									
19345 11.2.2-Terkenblorochase		Styrene							
Selection Sele									
156467 1-Dichlorobenbare									
120021 13-Discharcebergame NA									
1209.21 12_A-Tichhorden-bree HA									
100527 Bezzieletyck NA NA 1.48-509 NA NA NA 1.48-509 NA NA NA 1.48-509 NA NA NA 1.48-509 NA NA NA 1.48-509 NA									
91579 Meth-teachtederer, 2- MA NA 1AA 4,245-05 NA 1A 3.2.5-04 125.34 Meth-teachtederer, 2- MA NA NA 1AB 4,245-05 NA NA 1AB 2.2.5-04 NA 1AB 2.2									
22334 Bibrary, 1,1" NA NA 5,0" 5,0" NA NA 1,0"									
200668									
19328 Acompiritive NA									
132849 Diseazo(ur) MA MA NA 1,3555/05 MA NA NA NA 1,355/05 MA NA									
NA NA NA REPORT									
B3011 Pharenthems NA NA 3.816104 NA 1.72-04									
120127									
CS-C3 CS-C3 Allohatics NA NA NA 7,855-07 NA NA 1,555-07 CS-C3 CS-C2 Rightenburg NA NA NA 7,855-07 NA NA 1,555-07 NA NA 2,755-03 CS-C10 Arcmetics NA NA NA 1,2325-09 NA NA 3,1-6-02 CS-C3 CS-C10 Arcmetics NA NA NA 1,365-09 NA NA 2,755-03 NA NA 2,755-03 NA NA 1,555-07 NA NA NA 1,555-09 NA NA 1,555-09 NA NA 1,555-09 NA NA NA NA 1,555-09 NA NA NA NA 1,555-09 NA									
CD-C12 CR-C12 Alphanistra NA NA NA 2.17E-07 NA NA 2.17E-03 CR-C10 CR-C10 Alphanistra NA NA NA NA NA 2.17E-03 NA 3.1E-02 CR-C14 CR-C16 Alphanistra NA NA NA NA 1.3EE-07 NA NA 3.7E-03 NA 3.7E-02 NA 3.7E-03 NA NA NA NA 8.7E-03 NA NA RESEARCH NA NA NA RESEARCH NA NA NA RESEARCH NA NA NA RESEARCH NA NA RESEARCH NA RESEARCH NA NA RESEARCH NA RESEARCH NA NA RESEARCH NA									
C9-C10 C9-C10 Aremetics NA NA NA 1,92E+00 NA NA 1,1E-02 C9-C18 C9-C18 Alphadicz NA NA NA 1,36E+07 NA NA 8,7E-03									
C9-C18 C9-C18 Apphasics NA NA NA 1.86E-07 NA NA 8.7E-03									
Contract Contracts No. 1 No. 1 No. 1 No. 1 No. 1 Access No. 1 Access									
	C:1-C2Z	CITICAL Atemptos	T Lév	1 190	<u> </u>	1.346.37		<u> </u>	, 4-4 L-7-4

96% UCL
Cencer 95% UCL
Risk HI
TOTAL: 4E-08 2.0E-01

= Cancer risk > 1E-05
or HO/H>1E+00

Trimetrisbenzame, 1,2,4Chichicrostrykane, 1,2,1 (ptal)
Trimetrisbenzame, 1,3,5n-Buylishane, 1,3,6n-Buylishane, 1,3,6n-Buylishane, 1,3,6n-Buylishane, 1,3,6n-Buylishane, 1,3,6n-Buylishane, 1,3,6n-Buylishane, 1,3,6n-Buylishane, 1,3,6n-Buylishane, 1,3,6Nection of the second of

Liberios C. 6.
Johnson & Etimorr Model - Dela Errity Screen
Inhylation of Violatina Inon 304
Futura Adus Recreational Scanario - RME
Southwest Promition. Walls GAH Supersund Stree. Occessive Unit 2
Whitney Serra!

CALCULATE RISK BASED GOLL CONCENTRATION (union "X" in "YES" (xxx)

SL-SCREEN Version 2.3; 03/01

VES OR

CALCULATE INCREMENTAL RISKS FISCU ACTUAL SCIE, CONCENTRATION (under "Z" in "TES" true and initial end core, below

	Enset Mittel and cor	nearithton,	ENTER	entex	ENTER	ENTER	ENTER												
ENTER		ENTER	Cecth below onede			Vedose zone	User-delimed	ENTER	ENTER	ЕМТЕ Я	ENTER	ENTER	RATINS	ENTER	ENTER	ентея	EMTER	ENTER	ENTER
Chenhosi CAS No.		Magers and conc.	to bottom of enclosed space floor,	Creath below grade to los of contemination.	- Average soil temperature.	#CS #01 how Asset to establish CSR	VACORA 2014 FOI VECT COTTANDES.	Vadose zona soil dry bulk density.	Vacione zone spilitolei concelly.	Vactore 2014 soil veter-filed porcetty.	Various zone edi organic certron frection.	Averesing time for	Averageno time for	Excasure	Scotte	Secours	Coversion	Tarout risk for	Tempel (sp.zerd) quartient for
(numbers only,		CR.	L	Li Li	7,	ect veco.	*	en e	no oran	e_v	OWEGE PRODUCT	Carcinocere.	ATNC	duration. ED	frequency. EF	ET	lector CF	OSTOPHOGENS.	THQ
no deshee)	Chertical	(4010)	(15 or 200 cm)	(um)	(°C)	permeability) Note	[em ⁻)	(g/cm²)	(undiage)	(cm²km²)	(Loitiese)	(ATR)	ATI)	(100)	(develop)	(000,000)	fre'm	(Ninkless)	(unidees)
464	Trimethylbenzene, 1.2.4-		18	15	10	LS		1.5	0.63	03	0.002	76	24	- 24	78	7.5	9780	1 05-08	, ,
\$4000	Dichloroethylene, 1,2- (total)		16	16	10	L8 1		1.5	043	0.3	0.002	70	24	24	78	2,5	3760	1.0E-08	1
100676	Trimethylbenzene, 1,3,5-	1	18	15	10	L6 1		1.5	0.43	0.3	0.002	70	24	24	78	2.5	6780	1 0E 408	1
104514	n-Butylbenzene		(6	16	10	LIS 1		1.5	0.43	0.3	0.002	76	24	24	78	2.5	8780	1 DE Q8	1111
81205	Naphthalane	2.74E+03	16	15	10	LB 1		1.6	0.43	0.3	0.002	75	24	24	78	7.5	8780	1 0E 08	1 1
99476	leopropytoluene, 4-		18	16	10	LS 1		1.5	0.43	0.3	0.003	76	24	24	78	2.5	8780	1 0€-08	7
136645	Butythenzene, sec-		16	15	10	LB 1		1,5	0.43	0.3	0.002	70	24	2	78	2.5	6780	1 0€ 08	, , , , , , , , , , , , , , , , , , , ,
74472	Chlorumethane	2.496+02	16	15	10	L8 1		1.5	0.43	0.3	0.002	70	24	24	78	2.6	9780	106-08	1 _1
76014	Vinyl chiaride	2.61E+02	18	18	10	LS i		1.5	0.43	0.3	0.002	75	24	Ä	УB	2.5	8780	1 06-08	1
76436	Bromomethane		16	15	10	L5 1	ļ	1.5	0.43	0.3	0 002	70	24	24	78	2.6	9780	1 06-08] 1
Plots	Ethyl Chloride	8.80E+01 1.20E+02	(5	16	10	LB 1		1.6	0.43	0.3	0.002	70	24	24	78	2.5	8750	1 0E 08	1
76364 76121	(,1-Dichloroethylene	1205402	16	15	10	L8 1		1.5	0.43	0.3	0 002	70	24	24	٠٠٠٠ ار ٠٠٠	2.6	8780 8780	1 06 00	1
6941	Trichioto 1 2 2 at linut on the ne 1 1 2 a	124E+02	15	16	10	L8 1		1,5	0.43	0.3	0.002	70	34 34	24	78 78	2.5 2.5	8750	1 0E-08 1 0E-08	1
76160	Carbon Diguifide	12.0.0	18	16	10	18 1		1.6	0.43	0.3	0.002	70	24	24	78	2.5	8750	106-04	1 1
78500	Methyl Acetele		15	18	10	L6 1	 	1.5	0.43	03	0.002	70	24	- 24	78	2.5	8780	1 06-08	+
79002	Methylene chloride	7.27E+02	18	15	10	18 1		1.5	0.43	03	B.002	70	24	24	78	2,6	8760	1 05 08	+
130606	trans-1_2-Dichlorosthylene	7.73E+01	18	15	10	LS T	 	1.5	0.43	0.3	0.002	70	24	24	78	2.5	8780	1 0E-08	1 1
1634044	Methyl-Tertiery-Butyl Ether	6,75E+01	18	15	ιņ	L8		1.5	0.43	0.3	0.002	70	24	24	76	2.5	8750	1 06-06	1-1-1
79343	1,1-Dichloroethane	1.56E+02	15	16	fo	LB T		1.5	0.43	0.3	0.002	70	24	24	78	2.5	8750	1 0E-08	1
150000	cle-1,2-Dichloroethylene	1.80E+02	18	15	10	LS 1		1.5	0.43	0.3	0 002	70	74	24	71	2.5	8760	1.0E-08	1
70013	Butanone, 2- (MEK)		18	18	to	LS 1	_	1.6	0.43	0.3	0.002	70	24	24	78	2.6	8780	1 06-08	7
71900	1,1,1-Trichicrosthune		18	15	10	L5 e	<u> </u>	1.5	0.43	0.3	0.002	70	24	24	78	2.5	a760	1 06 08	1
110437	Cyclohekahe		15	16	10	LS 1		T.5	043	0.3	0.002	70	24	и.	78	7.6	A780	1.06.08	1
71450	Воплени	2.10E+02	15	16	10	LB 1		7.6	0.43	03	0.002	70	24	24	76	2.5	8760	1.0E-06	1
79039	Trichlorostrylens	2 81E+62	18	18	10	L8 1		1.5	9.43	0.3	0.002	70	24	24	TE	2.5	8760	1 06,408	1
106877	Methyl cyclchecene	4,45E+02	15	15	10	13 1		1.5	0.43	ده	200.0	76	24	24	18	25	8750	1 0E-08	1 1
100041	Toluene	5.856+02	15	16	10	L8 1	7	T.5	0.43	03	0.002	70	24	24	76	2.5	8760	1.0E-06	1 "1 "
12*144	Tetrachicrostrylens	1.47E+02	16	15	10	1 (5 11)		1.5	9.43	0.3	0.002	70	24	24	76	2.5	8760	1.06-08	1
104807	Chlorobenzene	3.11E+02	15	16	10	LB 1	ļ	T.6	0.43	0.3	0 0003	70	24	34	78	2.6	8780	1.05.08	1
100414	Etryberasie	1.84E+02	16	16	10	l8 1		1.5	0.43	0.3	0.002	70	24	22	76	2.5	8760	1.0E-06	1
123030V 100428	Xylenas		15	15	10	LS 1		1.5	0.43	0.3	0.002	מל מל	24	24	76 76	2.5	8760	1.05.06 1.05.06	1
100CB	Styrene Isopropybertzene		15	15	10	LS 1		1,5	0.43	0.3	0.002	70	24	24	76	2.5	8760	1.0E-06	+-
76A	1,1,2,2-Tetrachioroathuna	-	16	15	10	LS 1		1.5	0.43	0.8	0.002	70	24		78	2.5	8760	1.0E-06	1 1
/698 M1791	Dichlorobengene, 1,3-	1.00E+02	16	16	to	LB 1	-	1.5	0.43	0.3	0.002	70	74	24	78	2.5	8760 8760	1.0E-06	
106467	1,4-Dicherobenzene	2.50£+02	15	16	10	18 1	 	1.5	0.43	0.3	0,002	70	24	24	76	2.5	8760	1.0E-06	·
M661	1.2-Dichlorobenzene	8 10E+Q1	18	18	10	LS 1	-	1,5	0.43	0.3	0.002	76	24	26	76	2.5	8760	1.05-06	<u> </u>
120121	1.2.4-Trichlorobenzene		15	15	10	LB 1		1.6	0.43	0.3	0.002	70	24	24	78	2.5	8780	1.08-06	1
100027	Benzeldehyde		15	16	10	1,8 1		1,5	0.43	0.2	0.002	76	24	24	76	2.5	8760	1.0E-06	+
27274	Metrytraphthalene, 2-	541E+03	18	15	10	L5 1		1.5	0,43	0.3	0.002	70	24	24	76	2.5	8760	1.0E-06	1
10834	Bipherryl, 1,1'-		15	15	10	LB 1		1,5	0.43	. 03	0.002	70	24	22	76	2.5	8700	1,0E-08	1 7 7
20070	Acuniphilitylene	4 00E+02	16	15	10	L8 1		1.3	0.43	0.3	0.002	70	24	24	76	2.5	8760	1.0E-08	1
23336	Acenephthene		- 15	18	tú	، فا		1.5	0.43	0.3	0.002	70	24	24	78.	2.5	8760	1.0E-08	1
122400	Dibenzofut en	1.79E+03	15	15	10	L8 1		1.5	0.43	0.3	0.002	70	24	24	76	2.5	8760	1.0E-06	1
91737	Fluorena		18	16	10.	LS 1		1.5	0.43	0.3	0.002	סל	34	24	78	2.5	8760	106-06	1
Mote	Phenanthrene	3.86E+04	15	15	10	LS 1		1.5	0.43	0.3	0.002	ŤQ	24	24	78	2.5	8760	1.05-08	
190127	Anthracene		15	15	10	LB 1		1.5	0.43	0.3	0.002	70	24	24	76	2.5	8760	1.0E-08	1 .
C5-C4	C5-C8 Alightetics	9.83E+04	15	15	10	LB 1		1.5	0.43	0.3	0.002	70	34	24	76	2.5	8766	1.0E-08	1
Cartis	C9-C12 Allphatics	0.11E+04	15	15	10	LS 1	L	1.5	0.43	0.3	0.002	70	24	74	76	7.5	87(80)	1.0E-08	1
09-016	C9-C10 Aromatics	4.31E+05	15	15	10	įs i		1,5	0.43	0.3	0.072	70	24	24	76	2.5	8760	1.0E-06	
CHCH	CP-C18 Allphates	8 04E+08 4,10E+08	18	15	10	LS 1		1.5	0.43	0.3	0.002	70	24	24	78	2.5	8760	1.0E-06	+ ! -
C114222 Note:	C11-C22 Argmatice	4.106/05	10	15	10	LB 1	1	1.6	0.43	0.3	0.002	70	74	24	78	2.5	8760	1.05-36	

Appendix C.4
Johnson & Etlinger Model - Data Entry Screen
Inhalation of Volatiles from Soil
Future Adult Recreational Scenario - RME
Southwest Prperties, Welts G&H Superfund Site, Operable Unit 2
Whitney Barret

Chemical CAS No. (numbers only, no dashes)	Chemical	Diffusivity in air, D _a (cm²/s)	Diffusivity In water, D _w (cm ² /s)	Henry's law constant at reference temperature, H (atm-m³/mol)	Henry's law constant reference temperature, T _R (°C)	Enthalpy of vaporization at the normal boiling point, $\Delta H_{V,b}$ (cal/mol)	Normal boiling point, T _s (°K)	Critical temperature, T _c (°K)	Organic carbon partition coefficient, K_{∞} (cm ³ /g)	Pure component water solubility, S (mg/L)	Unit risk factor, URF (µg/m³) ¹	Reference conc., RfC (mg/m³)	Physical state at soil temperature, (S.L.G)
		•		***					•••			• • •	
95636	Trimethylberizene, 1,2,4-	7,80E-02	9.03E-06	5.70E-03	25	1,25E+03	442.30	649.11	3.72E+03	5.70E+01	N/A	6.0E-03	
540590		5.59E-02	6.47E-06	4.30E-04	20	1,32E+03	585.00	877.50	1.28E+02	1.30E+00	#N/A	#N/A	0.0E+00
108678		6.48E-02	7.86E-06	7.81E-03	25	1.25E+03	442.30	649.11	1.67E+03	2.00E+01	N/A	6.0E-03	L.
104518		7.25E-02	8.39E-06	1.25E-02	25	1.23E+03	456.00	684.00	2.51E+03	1.26E+00	#N/A	#N/A	L.
91203	Naphthalene Naphthalene	5.90E-02	7.50E-06	4.83E-04	25	1.04E+04	491.14	748.40	2.00E+03	3.10E+01	N/A	3.0E-03	s
99876	Isopropyttoluene, 4-	7.25E-02	8,39E-06	8.60E+00	25	1.24E+03	450.10	652.04	1,58E+03	2.34E+01	N/A	4.0E-01	L L
135988	Butylbenzene, sec-	8.00E-02	8.00E-06	1.67E-02	25	1.24E+03	446.65	669.98	3.11E+04	1.76E+01	#N/A	#N/A	0.0E+00
74873	Chloromethane	1.26E-01	6.50E-06	8.67E-03	25	1.35E+03	249.00	373.50	1.43E+01	5.32E+03	N/A	9.0E-02	0.0E+00
75014	Vinyl chloride	1.06E-01	1,23E-05	2.71E-02	25	5.25E+03	259.25	432.00	1.86E+01	2.76E+03	8.8E-06	1.0E-01	<u> </u>
74839	Bromomethane	7.28E-02	1.21E-05	6.22E-03	25	5.49E+03	276.50	414.75	1.43E+01	1.52E+04	N/A	5.0E-03	0.0E+00
75003	Ethyl Chloride	1.26E-01	6.50E-06	8.67E-03	25	1.36E+03	249.00	373.50	1.43E+01	5.32E+03	N/A	1.0E+01	
75354		9,00E-02	1,04E-05	2,61E-02	25	6.25E+03	304.75	576.05	5.89E+01	2.25E+03	N/A	2.0E-01	<u> </u>
76131	Trichloro-1,2,2-triflouroethane, 1,1,2-	2.88E-02	8.07E-06	5.17E-01	25	1.33E+03	320.70	481.05	2.25E+02	1.70E+02	N/A	3.0E+01	0.0E+00
67641	Acetone	1.24E-01	1.14E-05	3.88E-05	25	6.96E+03	329.20	508.10	5.75E-01	1.00E+06	N/A	N/A	L,
75150	Carbon Disulfide	1.04E-01	1.29E-05	1.27E-02	25	6.39E+03	319.00	552.00	5.14E+01	2.67E+03	N/A	7.0E-01	L L
79209	Methyl Acetate	1.04E-01	1.00E-05	1.13E-04	25	1.31E+03	365.00	547.50	3.32E+00	2.43E+05	#N/A	#N/A	0.0E+00
75092	Methylene chloride	1.01E-01	1.17E-05	2.19E-03	25	6.71E+03	313.00	510.00	1.17E+01	1.30E+04	4.7E-07	3.0E+00	L
156605	trans-1,2-Dichloroethylene	7,07E-02	1.19E-05	9.39E-03	25	1.33E+03	320.85	516.50	5.25E+01	6.30E+03	N/A	2.0E-01	ł L
1634044		1.02E-01	1.05E-05	5.87E-04	25	1,32E+03	328.36	497.11	3.B4E+01	5.10E+04	N/A	3,0E+00	L
75343	1,1-Dichloroethane	7.42E-02	1.05E-05	5.61E-03	25	6.90E+03	330.55	523.00	3.16E+01	5.06E+03	N/A	5.0€-01	L,
156592	cis-1,2-Dichloroethylene	7.36E-02	1.13E-05	4.07E-03	25	7.19E+03	333.65	544.00	3.55E+01	3.50E+03	N/A	2.0E-01	L
78933	Butanone, 2- (MEK)	8.08E-02	9.80E-06	5.60E-05	25	1.31E+03	352.50	528.75	3.83E+00	2.23E+05	N/A	N/A	0.0E+00
71556	1,1,1-Trichloroethane	7.80E-02	8.80E-06	1.72E-02	25	7.14E+03	347.24	545.00	1.10E+02	1.33E+03	N/A	2.2E+00	L
110827	Cyclohexane	8.00E-02	9.00E-06	2.00E+00	25	1.31E+03	353.85	530.78	1,60E+02	5.50E+01	#N/A	#N/A	0.0E+00
71432	Benzene	B.80E-02	9.80E-06	5.56E-03	25	7.34E+03	353.24	562.16	5.89E+01	1.75E+03	7.8E-06	3.0E-02	L
79016	Trichloroethytene	7.90E-02	9.10E-06	1,03E-02	25	7.51E+03	360.36	544.20	1.66E+02	1.10E+03	1,1E-04	4.0E-02	L
108872	Methyl cyclonexane	9.86E-02	8.52E-06	4.23E-01	25	1,30E+03	373,90	560,85	2.68E+02	1.40E+01	N/A	3.0E+00	L
108863	3 Toluene	8.70E-02	8.60E-06	6.63E-03	25	7.93E+03	383.78	591.79	1.82E+02	5.26E+02	N/A	4.0E-01	
127184		7.20E-02	8.20E-06	1.84E-02	25	8.29E+03	394.40	620.20	1.55E+02	2.00E+02	5.9E-06	N/A	<u> </u>
108907		7.30E-02	8.70E-06	3.71E-03	25	8.41E+03	404.87	632.40	2.19E+02	4.72E+02	N/A	6.0E-02	<u> </u>
100414		7.50E-02	7.80E-06	7.88E-03	25	8.50E+03	409.34	617.20	3.63E+02	1,69E+02	N/A	1.0E+00	<u> </u>
1330207		7.69E-02	8.44E-06	6.73E-08	25	1,26E+03	417.40	616.21	2.41E+02	2.20E+02	N/A	1.0E-01	ļ
100425		7.10E-02	8,00E-06	2.76E-03	25	8.74E+03	418.31	636.00	7,76E+02	3.10E+02	#N/A	#N/A	ļ
98826		6.50E-02	7.83E-06	1.47E-02	25	1.26E+03	425.40	631.01	9.31E+03	5,60E+01	N/A	4,0E-01	├──-
79345	 	7.10E-02	7.90E-06	3.44E-04	25	9.00E+03	419,60	661.15	9,33E+01	2.97E+03	#N/A	#N/A	<u> </u>
54173		4.14E-02	8.85E-06	4.70E-03	25	1.24E+03	446.00	683.96	1.70E+02	6,88E+01	N/A	N/A	
10646		6.90E-02	7.90E-06	2.43E-03	25	9,27E+03	447.21	684.75	6.17E+02	7.38E+01 2.77E+04	N/A N/A	8.0E-01 N/A	\$ \$
9550		6.88E-02	9.41E-06	1.62E-06	25	9.70E+03	465,00	697,50	5.34E+01 1.78E+03	3.00E+02	N/A	2.0E-01	
12082		3.00E-02	8.23E-06	1.42E-03	25	1.05E+04 1.24E+03	486.15 452.00		3.27E+01	6.57E+03	#N/A	#N/A	0.0E+00
10052		7.30E-02	9.07E-06	2.62E-05	25	1.24E+03	514.05	761,01	8.51E+03	2.46E+01	N/A	3.0E-03	S S
91576		4.84E-02	7.75E-06	1.01E-03	25	1.15E+03	529.10	793.65	6.25E+03	6.94E+00	N/A	N/A	0.0E+00
92524		4.04E-02	8.15E-06	3.03E-04	25		553.00	793.63	4.79E+03	3.93E+00	N/A	3.0E-03	S S
20896		4.43E-02	7.44E-06	2.80E-04 1,55E-04	25 25	1.12E+03 1.22E+04	550.54	803.15	7.08E+03	4.24E+00	N/A	3.0E-03	s
83321 13264		4.21E-02	7.69E-06 5.93E-06	1,55E-04 4,00E-03	25	1,11E+03	559.00	824,01	8.13E+03	1,00E+01	N/A	N/A	8
8673		2.67E-02 3.63E-02	7.88E-06	9,41E-08	25	1.27E+04	570.44	870.00	7.71E+03	1.90E+00	N/A	3.0E-03	s
8501		3.30E-02	7.47E-06	1.30E-04	25	1.06E+03	613.00	869,01	1.41E+04	1,28E+00	N/A	3.0E-03	Š
12012		3.30E-02 3.24E-02	7.74E-06	6.51E-05	25	1.31E+04	615.18	873.00	2.95E+04	4.34E-02	N/A	3.0E-03	Š
C5-C		6.00E-02	1.00E-05	1.30E+00	25	NA	NA NA	NA	2.27E+03	1.10E+04	N/A	2.0E-01	- s
C9-C1:		6.00E-02	1.00E-05	1.56E+00	25	NA NA	NA NA	NA NA	1.50E+05	7.00E+01	N/A	2.0E-01	s
C9-C1		6.00E-02	1.00E-05	7.92E-03	25	NA NA	NA NA	NA NA	1.78E+03	5,10E+04	N/A	5.0E-02	s
C9-C1		6.00E-02	1.00E-05	1.66E+00	25	NA NA	NA NA	NA NA	6.80E+05	1.00E+01	N/A	2.0E-01	Š
C11-C2		6.00E-02	1.00E-05	7.32E-04	25	NA NA	NA NA	NA NA	5.00E+03	5.80E+03	N/A	5.0E-02	
<u> </u>	4 CTI-CZZ ATORIZIES	0.005-02	1.00=-05	1.32E-04	1 40	1 1975	111/4	1, 130	1 3.tvc-103	1 3.00E.03	1.100	1 0.05:04	

Appandix C.4
Johnson & Ettinger Model - Deta Entry Screen
Inhalation of Volalifies from Soil
Future Adult Recreational Scenario - RME
Southweel Prparties, Wells G&H Superfund Site, Operable Unit 2
Writinsiy Barret

Chemical CAS No.		Source- building separation,	Vadose zone soli air-filed porosity,	Vadose zone effective total fluid saturation,	Vadose zone eoil Intrinsic permeability,	Vadose zone eoil relative air permeability,	Vadose zone soli effective vapor permeability,	Floor- wali seam perimeter,	frittal soil concentration used,	Bldg. ventilation rate,	Area of endosed space below grade,	Crack- to-total area ratio,	Creck depth below grade,	Enthalpy of reportzation a ave. soil temperature,	ave. soil	Henry's law constant at ave. soil temperature,	Vapor viscosity at eve, soll temperature,	Vadose zone effective diffusion coefficient.
(numbers only,		LT	Θ.Υ	S _{in}	k,	Key	k,	Xorack	CR	Charleton	A _e	η	Z	$\Delta H_{v, rs}$	H _{TS}	HTS	μ _{τε}	D*** _V
no dashes)	Chemical	(cm)	(cm³/cm³)	(cm³/cm³)	(cm²)	(cm²)	(cm²)	(cm)	(µg/kg)	(cm³/s)	(cm²)	(unitiess)	(cm)	(cal/mol)	(lom/m-mts)	(unitless)	(g/cm-s)	(cm²/s)
		,													4.98E-03	2 13E-01	1.75E-04	4.77E-04
95836 540590	Trimethylbenzene, 1,2,4- Dichloroethylene, 1,2- (total)	 	0.130	0.659	1 62E-08	0.390	6.33E-09 6.33E-09	1.72E+04 1.72E+04	4.36E+05 5.98E+02	2.52E+08 2.52E+08	9.50E+06 9.50E+06		15	1.55E+03 1.73E+03	3.87E-04	1.87E-02	1.758-04	3.77E-04
108678	Trimethylbenzene, 1,3.5-	 	0.130	0.659	1.62E-08	0.390	6.33E-09	1.72E+04	7.13E+04	2.52E+08	9.50E+06	1.30E-04	15	1.55E+03	8.80E-03	2 93E-01	1.75E-04	3.95E-04
104518	n-Butylbenzene	1	0.130	0.659	1 82E-08	0.390	6.33E-09	1.72E+04	6 63E+03	2.52E+08	9.50E+06	1.30E-04	15	1.53E+03	1.09E-02	4.69E-01	1.75E-04	4.41E-04
91203	Naphthalene	1	0.130	0.659	1.62E-08	0.390	6.33E-09	1.72E+04	2.74E+03	2.52E+08	9.50E+06	1.30E-04	15	1.29E+04	1.52E-04	6.55E-03	1,75E-04	4.70E-04
99876	Isopropyltoluene, 4-	1	0.130	0.559	1.62E-08	0.390	6.33E-09	1.72E+04	7.31E+08	2.52E+08	9.50E+06		15	1.57E+03	7.48E+00	3,22E+02	1.756-04	4.39E-04
135988	Butylbenzene, sec-	1	0.130	0.859	1.62E-08	0.390	6.33E-09	1.72E+04	1.10E+06	2.52E+08	9.50E+06		15	1.53E+03	1.48E-02	6.27E-01	1.76E-04	4 86E-04
74873	Chioromethane	1	0,130	0.659	1.62E-08	0.390	6.33E-09	1.72E+04	2.49E+02	2.52E+06	9.50E+08		15	1.20E+03	7.79E-03	3.35E-01 7.46E-01	1.75E-04 1.75E-04	7.66E-04 6.44E-04
75014	Vinyl chloride	1	0.130	0.859	1.62E-08	0.360	6.33E-09	1.72E+04	2.61E+02 3.69E+06	2.52E+08	9.50E+08		15 15	5.00E+03 5.39E+03	1 73E-02 3.84E-03	1,65E-01	1.75E-04	4 48E-04
74839 75003	Bromomelhane Elhvi Chloride	1 1	0.130	0.659	1,62E-08 1,62E-08	0.390	5,33E-09 6.33E-09	1.72E+04 1.72E+04	8.60E+01	2.52E+08 2.52E+08	9.50E+08		15	1.20E+03	7.78E-03	3.35E+01	1.75E-04	7.66E-04
75354	1,1-Dichloroelhylane		0.130	0.859	1.62E-08	0.390	6.33E-09	1.72E+04	1.20€+02	2.52E+08	9.50E+08		15	6.39E+03	1.47E-02	6.34E-01	1.75E-04	5.47E-04
76131	Trichloro-1,2,2-triflouroethane, 1,1,2-	1 1	0.130	0.669	1.62E-08	0.390	8.33E-09	1.72E+04	3.99E+05	2.52E+08	9.50E+06		15	1,44E+03	4.55E-01	1.96E+01	1.75E-04	1.75E-04
67841	Acetone	1	0.130	0,659	1.62E-08	0.390	8.33E-09	1.72E+04	3.248+02	2.52E+08	9.50E+08		15	7,58E+03	1.97E-05	8.50E-04	1.75E-04	2.07E-03
76160	Carbon Disulfide	1	0.130	0.659	1.62E-08	0.390	6.33E-09	1.72E+04	8.78E+05	2.52E+06	9.50E+08	1.30E-04	15	6.68E+03	0.89E-03	3.01E-01	1.75E-04	6.34E-04
79209	Methyl Acetate	1	0.130	0.659	1.62E-08	0.390	6.33E-09	1.72E+04	5.03E+07	2.52E+08	9.50E+08		16	1.50E+03	9.88E-05	4.25E-03	1.75E-04	8.61E-04
75092	Methylene chioride	1	0.130	0.669	1.62E-08	0.390	6.33E-09	1.72E+04	7.27E+02	2.52E+D8	9.50E+08		15	7.03E+03	1.176-03	5.03E-02	1.75E-04	6.35E-04 4.32E-04
156605	Irana-1,2-Dichloroethylene	1	0.130	0.659	1.62E-08	0.390	8.33E-09	1.72E+04	7.73E+01	2.52E+08	9.50E+05		15	1.42E+03	8.27E-03	3,56E-01 2,22E-02	1.75E-04 1.75E-04	6.87E-04
1834044	Methyl-Tertiary-Bulyl Ether	1	0.130	0.659 0.669	1.62E-08	0.390	6.335-09	1.72E+04	5.75E+01 3.58E+02	2.52E+08	9.50E+08		15	1.45E+03 7.45E+03	5.18E-04 2.88E-03	1.24E-01	1,75E-04	4.58E-04
76343 158592	1,1-Dichloroethane cis-1,2-Dichloroethylene	1-1-	0.130	0.659	1.62E-08 1.62E-08	0.390	6.33E-09 6.33E-09	1.72E+04 1.72E+04	1.80E+02	2 62E+06 2 6ZE+06	9.50E+08	1.30E-04	15	7.73E+03	2.04E-03	8.77E-02	1 75E-04	4.59E-04
78933	Butanone, 2- (MEK)	1	0.130	0.859	1.62E-08	0.390	6.33E-09	1.72E+04	4.63E+07	2.52E+06	9.50E+06	1.30E-04	15	1.49E+03	4.90E-05	2.11E-03	1.75E-04	9.45E-04
71556	1,1,1-Trichioroethane	1	0.130	0.558	1.62E-08	0.390	0.336-09	1.72E+04	6.01E+06	2.52E+08	9.50E+06	1.30E-04	15	7.88E+03	8.50E-03	3.86E-01	1.75E-04	4.75E-04
110827	Cyclohexane	1	0.130	0.659	1.62E-08	0.390	8.33E-09	1.72E+04	3.88E+05	2.52E+05	9.50€+06	1.30E-04	15	1 49E+03	1 75E+00	7.64E+01	1.75E-04	4.85E-04
71432	Benzena	1	0.130	0.659	1.62E-08	0.390	8.33E-09	1.72E+04	2,10E+02	2.52E+06	9.50E+05		15	8 12E+03	2,695-03	1.16E-01	1.75E-04	5.42E-04
79018	Trichloroethylene	1	0.130	0.659	1.62E-08	0.390	6.33E-09	1.72E+04	2.91E+02	2.52E+08	9.50E+08		15	8.58E+03	4.79E-03	2.06E-01	1.75E-04	4.83E-04
108872	Methyl cyclohexane	1	0.130	0.656	1.62E-08	0.390	6.33E-09	1.72E+04	4.45E+02	2 52E+08	9.50E+08		15	1.51E+03	3.70E-01	1,59E+01	1.75E-04 1.75E-04	5.98E-04 5.34E-04
108883	Toluene	1	0.130	0,659	1.62E-08	0,390	6.33E-09	1,72E+04	5.85E+02	2 52E+08	9.50E+08	1.30E-04	15	9.15E+03 9.55E+03	2.92E-03 7.83E-03	1.26E-01 3.37E-01	1.75E-04 1.75E-04	4.39E-04
127164 108907	Tetrachloroethylene	1	0.130	0.659 0.659	1,62E-08	0.390	6.33E-09 6.33E-09	1.72E+04 1.72E+04	1.47E+02 3.11E+02	2.52E+06 2.52E+06	9.50E+06 9.50E+06		15	9.50E+03	1 54E-03	8.65E-02	1.75E-04	4.55E-04
100907	Chlorobenzane Ethylbenzene	1 - 1	0.130	0.659	1.82E-08	0.390	6.33E-09	1.72E+04	1.845+02	2.52E+06	9.50E+08		15	1.02E+04	3.18E-03	1.37E-01	1.75E-04	4 80E-04
1330207	Xvienea	+ +	0.130	0.659	1.82E-08	0.390	6.33E-09	1.72E+04	1.50E+05	2.52E+08	9.50£+08		15	1.54E+03	6.98E-08	2,52E-04	1.75E-04	3.75E-03
100425	Styrene	1 1	0.130	0.659	1.62E-08	0.380	6.33E-09	1,72E+04	5 44E+06	2.526+08	9.50E+00		15	1.05E+04	1.08E-03	4.67E-02	1.75E-04	4.47E-04
98828	laopropy/benzene	1	0 130	0.659	1.62E-08	0.390	6 33E-09	1.72E+04	1.08E+08	2.52E+08		1.30E-04	15	1,54E+03	1.28E-02	5.51E-01	1.75E-04	3.95E-04
79345	1,1,2,2-Telrachioroethane	1	0.130	0.659	1.82E-08	0.390	5.33E-09	1,72E+04	1.15E+06	2.52E+06	9.500+06		15	1.05E+04	1.34E-04	5.77E-03	1.75E-04	5.65E-04
541731	Dichlorobenzene, 1,3-	1	0.130	0.859	1.62E-08	0.390	6.33E-09	1.72E+04	1.00E+02	2.5ZE+08	9.506+08		15	1.50E+03	4.11E-03	1,77E-01	1.75E-04	7.58E-04
108487	1,4-Dichlorobenzene	1 1	0,130	0.859	1.82E-08	0.390	6.33E-09	1.72E+04	2.50E+02	2.52E+08	9.50E+08		15	1,12E+04	8.89E-04	3.83E-02	1.75E-04	4.38E-04
95501	1,2-Dichlorobenzene	1 1	0.130	0.659	1.62E-08	0.390	6,33E-08	1.72E+04	5.10E+01	2.52E+08	9.50E+08		15	1.21E+04 1.32E+04	5.51E-07 4.35E-04	2,37E-05 1,87E-02	1.75E-04 1.75E-04	3.94E-02 2.25E-04
120821	1,2,4-Trichlorobenzene	+	0.130	0.659 0.659	1.62E-06 1.62E-08	0.390	6,33E-08 6,33E-08	1.72E+04 1.72E+04	1.13E+08 1.74E+08	2.52E+06 2.52E+06	9.50E+06		15	1.53E+03	2.29E-05	9.84E-04	1.75E-04	1.35E-03
91576	Benzaldehyde Methylnaphthalene, Z-	+	0.130	0.659	1.82E-08	0.390	6.33E-08	1.72E+04	6.41E+03	2.52E+06	9.50E+06		15	1.51E+03	8.85E-04	3.81E-02	1,75E-04	3.13E-04
92524	Biphenyl, 1,1%	+	0.130	0.659	1.625-08	0.390	6,33E-09	1.72E+04	5.81E+04	2.52E+06	9.50E+05		15	1.47E+03	2.86E-04	1.14E-02	1.75E-04	3.15E-04
208968	Acenaphilitylene	1	0.130	0.659	1.62E-08	0.390	6.33E-09	1.72E+04	4.00E+02	2.52E+08	9.50E+08		15	1.616+03	2.45E-04	1.05E-02	1.75E+04	3.38E-04
83329	Acenephthene	1	0.130	0.659	1.62E-08	0.390	6.33E-09	1.72E+04	6.09E+04	2.52E+08	9.50E+08	1.30E-04	15	1.81E+04	3.67E-05	1.58E-03	1.76E-04	7.33E-04
132649	Dibenzofuran	1	0,130	0.659	1.62E-08	0.390	6.33E-09	1,72E+04	1.79E+03	2.526+06	9.50E+08		15	1.47E+03	3.51E-03	1.616-01	1.76E-04	1.66E-04
86737	Fluorene	1	0.130	0.659	1.62E-08	0.390	8.33E-09	1.72E+04	2.97E+04	2.52E+08	9.60E+08		15	1.82E+04	2 205-08	9.48E-07	1.75E-04	6 16E-01
85018	Phenanthrene	1 1	0,130	0.659	1.62E-08	0.390	6.33E-09	1.72E+04	3.64E+04	2,52E+08	8.50E+08		15	1.48E+03	1.145-04	4.90E-03 5.43E-04	1,75E-04 1,75E-04	3 50E-04 1,60E-03
120127	Anthraceme	1 1	0.130	0.669	1.62E-08	0.390	6.33E-09	1.77E+04	2.57E+03 9.83E+04	2.52E+06	9.50€+08 9.50€+08		15	1.84E+04 NA	1,26E-06 6,46E-01	2.79E+01	1.75E-04	3.64E-04
C5-C8	CS-CS Aliphetics	 	0.130	0.659	1.62E-08 1.62E-08	0,390	6,33E-09 6,33E-09	1.72E+04 1.72E+04	9.83E+04 8.11E+04	2.52E+08 2.52E+08	9.50E+08		15	NA	7.80E-01	3.38E+01	1.75E-04	3.64E-04
C9-C12 C9-C10	C9-C12 Aliphatics C9-C10 Aromatics	1	0.130	0.659	1.62E-08	0.390	0.33E-09	1.72E+04	4.31E+05	2.62E+06	9.50E+08		15	NA NA	3.98E-03	1.70E-01	1.75E-04	3.69E-04
C9-C16	C9-C18 Alphalics	 	0.130	0.659	1.62E-08	0.390	8 33E-09	1.72E+04	6.04E+06	2.62E+06	9.50E+06		15	NA NA	8.286-01	3.56E+01	1.75E-04	3.64E-04
C11-C22	C11-C22 Aromatics	1 1	0.130	0.659	1.82E-08	0.390	8.33E-09	1.72E+04	4,10E+08	2.52E+06		1.30E-04	15	NA NA	3.60E-04	1.55E-02	1.75E-04	4.27E-04
×11.742	10 11-9-E revitation				11022-00	0.040	,	117.00										